PB-229 584

PROCEEDINGS. CONFERENCE IN THE MATTER OF POLLUTION OF THE NAVIGABLE WATERS OF GALVESTON BAY AND ITS TRIBUTARIES-TEXAS HELD AT HOUSTON, TEXAS ON JUNE 7, 8, 9, 10, 11, 12, 1971. VOLUME 3

Environmental Protection Agency
Washington, D. C.

12 June 1971

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CONTENTS

	PAGE
John Wildenthal	1363
Henry Luyties	1392
Dr. Walter A. Quebedeaux, Jr.	1412
L. A. Greene, Jr.	1494
Mrs. Barbara Bunger	1532
Edward Richards	1541
Mark Hooper	1552
Mark Wood	1557
J. N. Smith (Read by Victor Emmanuel)	1562
Victor Emmanuel	1575
Honorable Larry Sullivan	1604
Jim Regland	1607
Shelby Bryan	1617
Hana Ginzbarg	1628
Sharron Stewart	1649
Dr. David Marrack	1688
Jody Duek	1703
Dr. Henry Hildebrand	1708
Michael Noblet	1711
John Hall	1715
Weld Gamble	1723
Dr. Nugent Myrick	1733
Executive Session	1738

400

June 11, 1971
A. M. SESSION

J. Wildenthal

CHAIRMAN STEIN: Let's reconvene. Mr. Yantis.

MR. YANTIS: This morning the order of business will be, first, Mr. John Wildenthal; then Barbara Bunger for the HEP channel area group; then L. A. Green and Henry Luyties for HEP; and then, Dr. Walter Quebedeaux of Harris County.

Mr. Wildenthal.

MR. JOHN WILDENTHAL
VICE-CHAIRMAN, BOARD OF DIRECTORS
GULF COAST WASTE DISPOSAL AUTHORITY
HOUSTON, TEXAS

MR. WILDENTHAL: Thank you very much, gentlemen.

I would like to say a brief word on what I view to be the national responsibility in the matter which has been under consideration this week, and I would rely very heavily on the national Government in the resolution of the problems that face this bay and face the Nation and face the world.

J. Wildenthal

Local government will play an essential and a vital role in the control of our environment, but I would like to make my point beginning first with an illustration of the argument over the minimum wage.

When I was young, the minimum wage was adopted, after some great debate over whether different parts of the country should have different minimum wages, because it cost less for labor to maintain the same standard of living down here in Texas, where it is warm and where you don't have to pay the big fuel bills and dress in such heavy clothing and insulate and centrally heat the houses so severely.

That argument was resolved in favor of fair competition on a national basis -- that labor costs should be the same in any part of the country. I feel like that should be a basic consideration. The terms of economic parity are such that national standards do not permit or do not force industry to go into the business of trading off one local government against another local government, as to which is going to impose the least costly controls.

Now I think that the ultimate decision,

of course, needs to be made in terms of the environment itself rather than the economic impact alone. If it were determined that a particular waste load could not be handled without injuring Galveston Bay, but that this waste load or a similar waste load could go down the Mississippi River, where the current is washing it out into the Gulf of Mexico, and the same waste load could go down the Mobile River, where the current is washing it out into the Gulf of Mexico, and there it would do no injury whatsoever, then, I think this area might respond with barge and pipelines to get wastes out into the gulf.

I would not want to undertake at this point a serious consideration of barging our wastes out into the Gulf of Mexico, because I think we would be contributing to killing the Gulf of Mexico.

And in that connection, I hope that the national Government is looking for, at the present time, standards which will have a fair economic impact and which will work in terms of our local environment, and not look at different parts and different bodies of water so differently that if the same poisons or the same waste loads would injure Galveston Bay but not injure the Mississippi River at the point they are being tested, then industry will just move over to the Mississippi River. I do not have that much confidence in the BOD and the DO and other tests that involve measurement and involve the effects of dilution, whether the dilution is in pipe or in the stream.

I think we should be sure that in our reliance on these tests that are influenced by the condition of the water that the waste is carried in, whether the wastes are going to remain inert, both chemically and biologically, and whether this kind of industrial accrual or otherwise that is carried out onto the Continental Shelf will there injure the Gulf of Mexico. Even if it does remain inert, covering the sedimentation that occurs, it may seriously damage the gulf.

We need you to tell us if the waste that cannot be put in the Galveston Bay is safe to be carried out into the Gulf of Mexico. Then we will have our share of disposal of wastes in the Gulf of Mexico by other means than the natural currents, because we don't have the natural currents that the Mississippi has or the Mobile. But what I fear is that we will continue -- if we rely on BOD's and dissolved oxygen, and it keeps raining upstream of Mobile and Baton Rouge and the snow melts -- to get good BOD readings in the Mississippi River, and the Gulf of Mexico will be dying.

Of course, this is a local conference on shellfish, and it is not a treaty amongst nations -- a conference on a treaty amongst nations to resolve how much Mexico and how much the United States can put into the Gulf of Mexico. But I think that question should be faced immediately.

The reports that all of us have read in the press and in the journals indicate that, if the other nations of the world were on a per capita basis to be disposing of wastes at the rate we are disposing of them at our rate of industry, the biosphere could not stand it. The water and the air would be ruined in our entire biosphere, and it places us in great risk of the judgment of mankind -- that we have profiteered as a Nation with our waste disposal practices, cheap waste disposal practices, with methods which, if practiced by the rest of the world, would destroy the biosphere. This is a judgment that will be placed upon our Nation if it is so. And it is a judgment that will be placed upon the national officials who have the responsibility of charting the Nation's course to see that we live responsibly.

I feel that Galveston Bay is a good test laboratory. I feel that with as little circulation of water as we have in Galveston Bay, if certain types of waste and certain waste discharges are completely compatible with marine life and with the protection of Galveston Bay, then that is a good test laboratory that those wastes can be discharged then in similar quantities and similar situations anywhere in the world.

But I would not like to see a standard that restricts these wastes in Galveston Bay, and then poisons the Gulf of Mexico or destroys the Gulf of Mexico by permitting similar wastes to be carried off in other streams in other cities and other areas. And I think the test of this and the allocation of what the waste load can stand has got to be in terms of productivity rather than in the dilution of the water.

We have determined in our agriculture that the world market and national market can only stand so much cotton, so much rice. If we determine the Gulf of Mexico can stand a certain amount of use in terms of disposal of waste without harming it at all, then we ought to divide up that use with Mexico and find a fair allocation basis of allocating that resource -- waste disposal to the area -- around the United States and part of the gulf as well.

But that sort of patchwork thing leaves us in danger of the judgment of mankind -- that we have profiteered off of waste disposal practices as a Nation, which if practiced worldwide when all the rest of the world catches up to where we are, will kill the biosphere. The canaries in our coal mines have begun to die.

We read the reports of endangered species from the DDT, and the penguins of the Antarctic are suffering, and the distress of birds and mammals and fish worldwide; and we are relying on you gentlemen to set a course which is both fair from a competitive impact and safe and responsible in the family of nations.

Thank you very much.

CHAIRMAN STEIN: Thank you very much, Mr. Wildenthal. (Applause.)

Let me just make a couple of very brief remarks:

1) The days of dumping untreated or inadequately treated wastes in the Gulf of Mexico or the ocean -- the Atlantic and Pacific -- are over. We certainly are concerned with that.

As a matter of fact, if you have examined the thrust of our controls in the Mississippi and Missouri, we are not concerned with DO. There is no problem with DO in those rivers. They are practically saturated because of their large volumes, but we are concerned with the residue going down.

However, let me indicate to you -- and I know you haven't been at this conference -- let's turn this around.

If we have requirements for standards of industries throughout the country, you are not suggesting we have a more lenient one in Galveston Bay and the Houston Ship Channel, are you?

MR. WILDENTHAL: Definitely not, definitely not.

CHAIRMAN STEIN: I think this is the issue.

MR. WILDENTHAL: Yes.

CHAIRMAN STEIN: Now, in other words, I think the problem here can be very easily resolved if we agree to put the same requirements on industry in the Galveston Bay area, as you suggest, that we are requiring in the other States of the country. I don't think we are looking for it to be any easier or harder but equitable. If we can proceed that way, I think we will have a big leg up on the problem.

Thank you.

MR. YANTIS: The 3 speakers from HEP can divide up their time, of course, any way they wish to.

The order in which I have them listed is Bunger, B-u-n-g-e-r, which could be Bunger or Booger. I, of course, don't know which it is. L. A. Green and Henry Luyties. Are they prepared to speak?

MR. LUYTIES: I am Henry Luyties and I am prepared to speak.

I believe Mr. Green spoke to one of the people at the Water Quality Board, and with compliance he will be here later on this morning. But I am prepared to speak at this time.

MR. YANTIS: Well now as to being later on this morning, that would be up to Dr. Quebedeaux.

MR. LUYTIES: Subsequent to Dr. Quebedeaux's presentation.

MR. YANTIS: It might well be after lunch. Dr. Quebedeaux wants to make a very lengthy presentation. It will run up to the noon hour. Between you and Barbara how do you want to divide it?

MR. LUYTIES: I believe Mrs. Bunger would follow Dr. Green, and obviously Dr. Quebedeaux.

MR. YANTIS: As you come up, I see a letter here addressed 2 or 3 days ago to be given into the record, and it has been given to us by Diamond Shamrock. I would like to put it into the record. We will get you a better copy.

CHAIRMAN STEIN: This will be entered into the record without objection.

[The above-mentioned letter follows.]

INTER-OFFIC. CORRESPONDENCE

DACO 118-1B

DATE 7/29/71 2609C.1C

TO R. D. Hall - Deer Park

FROM R. F. Adams - Deer Park

SUBJECT Report on EPA-FWQA Analytical Results on Deer Park Outfall Samples Taken April 21, 22, and 23, 1971

Copy For cc:
W. R. Taylor/R. E. Frey - Cleveland
R. C. Sutter - Cleveland
C. R. Powell - Cleveland
Steve Puschaver - Cleveland
V. B. Wielkens - Mobile
W. J. Butler - Deer Park
W. D. Wegrich- Deer Park
R. J. Martz - Deer Park
M. C. Sullender - Deer Park
Eli Zinn - Deer Park
E. R. Henderson - Deer Park
J. D. Miller - Deer Park
K. W. Sanders - Deer Park
A. D. Thomas - Deer Park
T. G. Wunderlich - Deer Park
M. L. Pulley - Deer Park

As previously reported in my memo of May 27, 1971, Diamond's Deer Park Works was visited by representatives of the EPA-FWQA (Environmental Protection Agency-Federal Water Quality Administration), TWQB (Texas Water Quality Board), and the Harris County Health Department (Dr. Quebedeaux's group) during the subject period.

Analyses were obtained by several labs and reported in this previous report, with the exception of the data that was obtained by the federal lab. This data were denied us by the EPA until the Enforcement Conference hearings held in Houston during June 7-12, 1971. With this information now available, the previous report has been amended to include the EPA analyses and is attached.

In addition to the amended analyses, I am enclosing copies of the EPA's calculated total discharges for each outfall at Deer Park, and the calculated total and net discharges for the Works, for 15 parameters. Please note that four of these indicated net discharges for the Deer Park Works are negative numbers. One of these shows an apparent loss of 61,083# per day of COD (chemical oxygen demand) by the Houston Ship Channel water by virtue of passing through our plant. This is, of course, an erroneous conclusion, caused by an unusually high COD value (435) reported for channel intake water on April 21 by the EPA lab. The main significance to us of these negative values is in supporting our contention that fluctuations in ship channel water quality and analytical limitations make it nearly impossible to draw valid conclusions regarding our outfall contributions, or to make material balances, using grab samples or short-term, 24-hour composite samples.

Other comments, which were made in the May 27 report and which can now be updated or expanded upon, include:

1. Trace Metals. In talking to Bob Reeves of EPA's Ada (Oklahoma) lab on July 23, I found that they used a scanning emission spectrograph as a first check on the samples. In general, this instrument will detect 1 mg/l (1 ppm) of most of the metals. If any metals were found in this range, the atomic absorption spectrograph was used for a more precise analysis. They checked our samples for the following trace metals: aluminum, barium, boron, cadmium, copper, chromium, iron, lead, manganese, molybdenum, nickel, silver, strontium, and tin (interference). They did not look for mercury or arsenic. Mr. Reeves said that, with the exception of iron and strontium, all values found were at or below 1 mg/l; and he "did not believe that we have a problem in this area."

2. Phosphates. The EPA's calculated differential of 385#/day of phosphates is not meaningful. Work at Deer Park's ElectroChemical Lab since the May 27 report has shown conclusively that we are not a significant phosphate contributor to the channel. Sampling and handling of the channel water samples in a manner which permitted algae to deplete the phosphate content is believed to be responsible for the apparent differences between intake and outfall waters which were previously observed.

I believe the attached tables are self-explanatory. If you have any questions, please let me know.

Robert F. Adams

Robert F. Adams
Regional Environmental Control Chemist

RFA/db

Attachments

DIAMOND SHAMROCK CORPORATION
Deer Park, Texas

3-day average

	Total Plant Discharge (lbs/day)	Sta DSDPT 6 Intake (lbs/day)	Net Plant Discharge (lbs/day)
TOC	15,083	14,024	1,059
COD	171,038	232,121	-61,083
*Oil & Grease	4,364	2,773	1,591
NH_3-N	36,827	33,819	3,008
Org-N	7,854	8,995	-1,141
Total Residue	16,217,428	15,926,082	291,346
TVR	2,691,296	3,101,395	-410,099
TSS	31,125	22,245	8,880
TVSS	11,872	6,770	5,102
BOD	5,225	3,546	1,679
Phosphorus	3,915	3,530	385
Manganese	< 246	< 242	< 4
Aluminum	< 592	< 483	< 109
Strontium	2,240	2,321	-81
IOD	300	226	74

*Grab sample

DIAMOND SHAMROCK CORPORATION
Deer Park, Texas
3-day average

	DSDPT 1 (lbs/day)	DSDPT 2 (lbs/day)	DSDPT 3 (lbs/day)	DSDPT 5 (lbs/day)
TOC	879	10,105	3,727	372
COD	10,147	126,770	30,151	3,970
*Oil & Grease	323	2,288	1,370	383
NH_3-N	2,212	24,197	9,393	1,025
Org-N	461	5,097	2,075	221
Total Residue	1,219,464	11,754,979	2,947,187	295,798
TVR	164,894	1,945,304	534,812	46,286
TSS	1,647	22,325	6,676	477
TVSS	668	8,463	2,531	210
BOD	133	3,527	1,354	211
Phosphorus	221	2,467	609	618
Manganese	< 17	176	< 48	< 5
Aluminum	< 33	< 354	194	11
Strontium	122	1,741	344	33
IOD	16	235	48	1

*Grab sample

CHANNEL WATER

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO
FLOW MGD	115.9	115.5			115.9	115.9		115.9		115.9	115.9	115.9			115.9
COLOR															
pH	7.1	7.9.			7.3	7.0		7.5		7.0	7.2	7.7			7.15
BOD_5	7	3.0			5.4	2				5.6	2	4.0			5.6
COD	435	85*			141	165		98		155	120	<30*			174
TSS	26	28			41	20		18		29	23	25			32
VSS	7	9			19	8		11		17	6	13			21
FSS	19	19			22	12		(7)		12	17	12			11
TR	15,800	14,700			14,981	16,600		16,796		16,285	17,000	15,700			15,767
TVR	2,360					2,660					4,600				
Oil & Grease	<1 **					6.3**		5			1.3**				
ALKALINITY, P.		0										0			
" T.		178										164			
TOTAL HARD.		2480										2,650			
TOT.-PHOS.(P)	4.0	2.6		3.3		3.5		2.5	2.8/2.9		3.45	1.9		3.2	
ORG.-NIT.(N)	3.0	4				20.5					4.4	<1			
NH_3 (N)	10.2					84.5		TRACE			10.2				
NO_3^- (N)															
NO_2^- (N)															
CYANIDE (CN^-)								0							
CHLORIDE (Cl^-)					7,786			7,900		8,136		78,200			8,154
SULFATE ($SO_4^=$)												970			
TOC	16.0					12.5					15.0				
CONDUCT.		29,400										31,360			
TOXICITY								NO KILL							
D.O.								6.6							
SULFIDES								0							
IOD	0.0					0.5					0.2				
METALS															
As				<0.01					<0.01/<0.01					<0.01	
Ba				<0.5					<0.5/<0.5					<0.5	
B				1.1					1.4/1.7					1.2	
Cd				0.02					<0.01/0.01					<0.01	
Cu				0.03					0.10/0.03					0.03	
Cr				<0.02					<0.02/<0.02					<0.02	
Pb				<0.1					<0.1/<0.1					<0.1	
Mn				0.20					0.20/0.20					0.18	
Ni				<0.05					<0.05/<0.05					<0.05	
Se				0.05					0.01/0.01					0.01	
Ag				<0.01					0.07/<0.01					<0.01	
Zn				0.04					0.01/0.04					0.02	
Hg (ppb)					0.4					0.3					0.2
Sr	2.0					2.4					2.8				
Al															

diagonal slash (/) indicates duplicate analyses

* chloride interference

** grab sample

#1 Outfall

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO
FLOW MGD	8.0	8.0			8.0	8.0				8.0	8.0				8.0
COLOR															
PH	7.0	7.9			7.1	3.2		3.9		3.8	6.0	6.6			6.3
BOD_5	—	3.0			2.2	1.0		5		3.7	3.0	3.5			3.6
COD	222	30*			156	187		146		182	47	<30*			165
TSS	20	17			29	22		7		28	32	45			37
VSS	9	7			16	8		1		25	13	21			28
FSS	11	10			13	14		6		3	19	24			9
TR	16,000	11,400			15,808	13,200		17,372		17,799	22,600	17,300			17,552
TVR	2,000					2,660					2,750				
Oil & Grease	<1**					7.4**		13			6.1**				
ALKALINITY, P.		0										0			
" T.		158										52			
TOTAL HARD.		2,160										2,430			
TOT.-PHOS.(P)	3.6	2.7		3.1		3.2		3.3	3.0		3.15	2.3		2.4	
ORG.-NIT.(N)	2.2	2				15.5					3	4			
NH_3-(N)	7.7					84.5		TRACE			7.2				
NO_3^- (N)															
NO_3^- (N)															
CYANIDE (CN)								0							
CHLORIDE (CL)					8,206			10,254		9,101		9,320			9,346
SULFATE (SO_4)												2,530			
TOC	14					12					13.5				
CONDUCT.		22,848										34,496			
TOXICITY								69							
D.O.								7.6							
SULFIDES								0							
IOD	0.2					0.4					0.1				
METALS															
As				<0.01					<0.01					<0.01	
Ba				<0.50					<0.5					<0.5	
B				1.5					1.7					1.6	
Cd				<0.01					<0.01					<0.01	
Cu				<0.02					<0.02					0.03	
Cr				0.09					0.14					0.09	
Pb				<0.1					<0.1					<0.1	
Mn				0.20					0.20					0.20	
Ni				<0.05					<0.05					<0.05	
Se				<0.01					0.01					0.01	
Ag				0.015					0.03					<0.01	
Zn				0.04					0.10					0.04	
Hg (ppb)					5					6					6
Sr	1.5					2.0					2.0				
Al						0.5									

diagonal slash (/) indicates duplicate analyses *Chloride interference **grab sample

Reproduced from best available copy.

#2 Outfall

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DAC
Flow MGD	83.8	85.9			85.06	85.0				84.66	84.7				84.9
COLOR															
pH	7.6	8.1			7.5	7.6		7.9		7.4	7.5	7.7			7.5
BOD$_5$	4	3.5			7.6	3.0		11		7.0	8.0	3.5			7.0
COD	332	55*			159	167		122		197	42	170*			194
TSS	36	65			48	39		31		39	20	24			50
VSS	12	22			18	13		5		25	11	12			28
FSS	28	43			30	26		26		14	9	12			22
TR	15,200	15,200			15,508	17,200		16,508		16,313	17,000	16,200			16,300
TVR	2,320					3,200					2,750				
Oil+Grease	<1 **					6.4**		10			2.3**				
ALKALINITY P.		0										0			
" T.		188										176			
Total Hard.		2,480										2,580			
Tot-Phos(P)	3.9	2.9		3.2		3.45		3.1	3.2/2.9		3.15	2.3		2.6	
Org-Nit(N)	2.2	4				16.0					3.4	3			
NH$_3$ (N)	8.5					86.0		TRACE			8.0				
NO$_3^-$ (N)															
NO$_2^-$ (N)															
CYANIDE (CN)								0							
CHLORIDE (Cl)					7,838			8,265		8,154		8,600			8,347
SULFATE (SO$_4$)												950			
TOC	15					14					14				
CONDUCT.		30,240										32,256			
TOXICITY								NO KILL							
D.O								6.4							
SULFIDES								0							
IOD	0.4					0.5					0.1				
METALS															
As				<0.01					<0.01/<0.01					<0.01	
Ba				<0.5					<0.5/<0.5					<0.5	
B				1.4					1.7/1.6					1.6	
Cd				<0.01					<0.01/<0.01					<0.01	
Cu				0.03					0.05/0.05					<0.02	
Cr				0.04					0.04/0.04					0.05	
Pb				<0.1					<0.1/<0.1					<0.1	
Mn				0.20					0.18/0.18					0.18	
Ni				<0.05					<0.05/<0.05					<0.05	
Se				<0.01					0.01/0.02					0.01	
Ag				<0.01					<0.01/<0.01					<0.01	
Zn				0.04					<0.01/0.03					0.04	
Hg (ppb)					0.4					0.2					0.4
Sr	2.0					2.6					2.8				
Al															

diagonal slash (/) indicates duplicate analyses

* Chloride interference

** grab sample

#3 OUTFALL

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACC
FLOW MGD	23.4	22.35			23.06	22.7				23.00	23.8	—			23.70
COLOR															
PH	7.7	8.3			7.9	7.4		7.7		7.0	7.5	7.4			7.25
BOD5	—	13			20	8		13		16	6	3.5			10
COD	248	30 *			174	160		118		186	59	200 *			219
TSS	54	52			43	27		14		27	22	39			44
VSS	18.	26			17	10		1		12	11	20			29
FSS	36	26			26	17		(13)		15	11	19			15
TR	13,900	13,600			14,386	16,200		15,092		14,435	15,400	14,300			15,072
TVR	1,820					3,700					2,760				
Oil & Grease	2**					8**		10			11.1**				
ALKALINITY P.		0										0			
" T.		210										170			
TOTAL HARD		2,250										2,330			
TOT.-PHOS.(P)	3.35	2.6		3.2		3.05		2.4	2.4		3.0	1.6		2.4	
ORG.-NIT (N)	4.3	4				25.5					2.8	< 1			
NH_3 (N)	16.3					120		TRACE			11.4				
NO_3^- (N)															
NO_2^- (N)															
CYANIDE (CN)								0							
CHLORIDE (Cl)					7,189			7,414		7,259		7,360			7,505
SULFATE (SO_4)												890			
TOC	20.5					18.5					18.5				
CONDUCT.		27,048										28,560			
TOXICITY								NO KILL							
D.O.								6.9							
SULFIDES								0							
IOD	0.2					0.3					0.0				
METALS															
As				<0.01					<0.01					<0.01	
Ba				<0.5					<0.5					<0.5	
B				1.1					1.6					2.5	
Cd				<0.01					<0.01					<0.01	
Cu				0.03					0.05					0.05	
Cr				0.04					0.09					0.09	
Pb				<0.1					<0.1					<0.1	
Mn				0.20					0.20					0.18	
Ni				<0.05					<0.05					<0.05	
Se				0.01					0.01					0.01	
Ag				<0.01					<0.01					0.05	
Zn				0.01					0.04					0.03	
Hg (ppb)					0.7					0.7					0.5
Sr	1.5					1.8					2.0				
Al	1.0					1.0					1.0				

diagonal slash (/) indicates duplicate analyses * chloride interference ** grab sample

#5 OUTFALL

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO
Flow, MGD	2.6	2.6			2.6	2.6				2.6	2.6	—			26
Color															
pH	7.4	8.1			7.7	7.3		7.6		7.4	7.2	7.6			7.55
BOD_5	13	4.5			22	8		24		23	8	4.0			20
COD	278	30*			131	153		90		164	118	190*			167
TSS	15	23			28	13		14		30	38	28			41
VSS	5	9			10	8		1		23	16	18			34
FSS	10	14			18	5		(13)		7	22	10			7
TR	12,800	12,700			12,822	13,700		9736		14,075	14,400	13,500			13,145
TVR	1,660					2,090					2,650				
Oil & Grease	39**					9.8**		115			4.1**				
Alkalinity, P.		0										0			
" , T.		222										216			
Tot. Hard.		2,040										2,120			
Tot. Phos. (P)	3.2	2.5		2.7		2.8		2.0	2.2		2.55	2.0		1.9	
Org. Nit. (N)	2.7	4				23.5					4.4	3			
NH_3 (N)	13.0					117		TRACE			11.7				
NO_3^- (N)															
NO_2^- (N)															
Cyanide (CN)								0							
Chloride (Cl^-)					6,628			6,806		6,891		7,000			7,189
Sulfate ($SO_4^=$)												810			
TOC	17.5					17.5					16.5				
Conduct.		25,312										26,880			
Toxicity								NO KILL							
D.O.								5.0							
Sulfides								0							
IOD	0.2					0.0					0.0				
Metals															
As				<0.01					<0.01					<0.01	
Ba				<0.5					<0.5					<0.5	
B				1.0					1.6					1.1	
Cd				<0.01					<0.01					<0.01	
Cu				0.03					0.03					0.03	
Cr				<0.02					0.09					0.09	
Pb				<0.1					<0.1					<0.1	
Mn				0.14					0.12					0.14	
Ni				<0.05					<0.05					<0.05	
Se				0.01					<0.01					<0.01	
Ag				<0.01					0.015					0.03	
Zn				0.02					<0.01					0.02	
Hg (ppb)					1					0.8					0.7
Sr	1.5					1.5					1.5				
Al															

diagonal slash (/) indicates duplicate analyses *chloride interference ** grab sample

WEF
Neog C10

INTER-OFFICE CORRESPONDENCE

DACO 118-18

DATE June 21, 1971

TO
R. C. Sutter - Cleveland
W. R. Taylor/R.E Frey - Cleveland
W. J. Butler
R. J. Martz
M. C. Sullender
W. D. Wegrich
Eli Zinn

FROM
R. D. Hall - Deer Park

SUBJECT: Environmental Control: Water
EPA-GWQA Enforcement Conference on Houston Ship Channel & Galveston Bay
June 7-12, 1971, Houston, Texas

cc: R. F. Adams w/attachment
T. G. Wunderlich "
C. R. Powell - Cleveland, w/att.
S. Puschaver - Cleveland "

Attached is a copy of my memo of May 27, 1971 and R. F. Adams' memo of the same date. Copies of these memos and the appended data sheets were given to Mr. Hugh C. Yantis, Jr., Executive Directer, Texas Water Quality Board, and were received "for the record without comment" by Mr. Murry Stein, Office of Enforcement, EPA-FWQA (Environmental Progection Agency-Federal Water Quality Administration), during the EPA-FWQA Enforcement Conference of the Houston Ship Channel and Galveston Bay (June 7-12, 1971). These data and information were given to the "conferees" in accordance with Mr. R. C. Sutter's statements, which were given on June 9, 1971.

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Richard D. Hall
Richard D. Hall
Regional Environmental Control Mgr.

RDH:mb

Att.

R. F. Adams

1383

DATE: 5/27/71

TO: R. C. Sutter-Cleveland
W. R. Taylor/R. E. Frey-Cleveland
W. J. Butler - Deer Park
R. J. Martz - Deer Park
M. C. Sullender - Deer Park
W. D. Wegrich - Deer Park
Eli Zinn - Deer Park

FROM: R. D. Hall - Deer Park

SUBJECT: Deer Park Works
Environmental Control: Water
Report on EPA-FWQA Sampling of Deer Park Works Outfalls on April 20-23, 1971

cc: R. F. Adams-Deer Park
E. R. Henderson - Deer Park
J. D. Miller - Deer Park
M. L. Pulley - Deer Park
K. W. Sanders - Deer Park
A. D. Thomas - Deer Park
T. G. Wunderlich - Deer Park
V. B. Wielkens - Mobile
C. R. Powell - Cleveland
Steve Puschaver - Cleveland

Attached please find R. F. Adams' report on the analytical results obtained by our lab, TWQB's lab, Harris County's lab, and one outside lab on the samples taken April 20-23, 1971. These samples were taken at the request of the EPA-FWQA (Environmental Protection Agency-Federal Water Quality Administration) in connection with the 1899 Refuse Act.

The EPA-FWQA results are not included because the EPA-FWQA refused to give us the analysis (see attached memo by R. F. Adams). I have called Mr. Richard Vanderhoof, Regional Director, EPA-FWQA, Dallas office, asking for a copy of their results. If we get them, I will forward them under separate cover.

I believe the attached report is self-explanatory. If you should have any questions, please contact R. F. Adams or me.

Richard D. Hall
Richard D. Hall
Regional Environmental Control Manager

RDH/db

Attachment

INTER-OFFICE CORRESPONDENCE

[illegible] 119-15

TO R. D. Hall - Deer Park

DATE 5/27/71

FROM R. F. Adams - Deer Park

SUBJECT Analytical Results on Deer Park Outfall Samples April 21, 22, and 23, 1971

Representatives of the federal and state water pollution control agencies visited the Deer Park Works on April 20, 1971, as a follow-up to their visit of February 17 and 18, 1971. The men representing the EPA were Messrs. Bat Shumatona and Grady Campbell from the Ada (Oklahoma) water lab. Mr. Bill Gross of the LaPorte office of the TWQB was also present. In our preliminary discussion, the EPA men informed us that:

1. They planned to collect 24-hour composite samples daily from all our outfalls for an indefinite period of time.
2. They would not be checking for mercury.
3. They would be looking at total phosphate since this material was found in the February outfall samples and was absent in the incoming channel water.

They gave us copies of the analytical results obtained previously and agreed to share with us the data to be obtained in the current study. By approximately noon, automatic samplers had been programmed to collect about five gallons daily of the four outfalls and incoming channel water. The samples were collected in containers stored in ice chests. The samples were divided each morning, and the EPA's portion was flown by chartered plane to the Oklahoma lab.

As it turned out, only three composites were taken during the study. The composites were removed from the sampler assemblies on the mornings of April 21, 22, and 23, 1971. In addition, "grab" samples were taken each day by the EPA to be checked for oil and grease. Finally, on the morning of April 22, we received notice that an agent of the Harris County Health Department (Dr. Quebedeaux's group) was on his way to obtain "grab" samples of our outfalls. We explained the program then in progress, and provided one-gallon samples from that morning's composites to Mr. Patrick Pendleton.

We divided our portion of the three sets of samples and sent them to an outside lab (Analytical and Testing Laboratory, Inc. of Houston) for trace metals analysis and for total phosphate. Mercury analysis, as well as other parameters, were peformed by Diamond's labs. We asked for and received good co-operation from the county and state agencies in the sharing of their data on the subject samples. This data is included in the attached tables. However, the EPA lab declined to provide their data (see attached memo).

Conclusions and Comments

1. Trace Metals. Generally, the outfall levels were essentially identical with those of the incoming channel water. Exceptions noted were for chromium (Cr) and mercury. The high value for boron (B) on #3 Outfall on 4/23/71 is not considered valid.

2. Phosphates. Apparently, the data obtained by the EPA on samples collected in February (which showed no phosphates in the channel water) were erroneous. However, there is evidence to indicate that we are adding some phosphates to our effluent in all outfalls, in the range of 0-1 ppm (as P) over channel water. We have developed the analytical capability to measure phosphates ourselves, and we are investigating the magnitude and source of this problem.

3. pH. There was a pH upset in #1 Outfall which showed up in the 4/22/71 sample. This was due to a sulfuric acid leak, and it was quickly corrected. No adverse effects were observed in the other outfall parameters from this upset with the exception of the comment "killed fish" by the Harris County lab. They also reported that 1:1 dilution raised the pH to 6.7 and showed no kill of minnows.

The attached tables compares the analytical results from the various labs. All results are reported as mg/l (parts per million) with the exception of flow (million gallons per day), pH, conductivity (µ mhos per cm), toxicity (kill time in minutes), and mercury (Hg, ppb).

R. F. Adams

RFA/db

R. F. Adams
Regional Environmental Control Chemist

Attachments

ADDITIONAL COMMENTS (added 6-10-71)

1. It should be noted that the analyses reported by the TWQB and Harris County labs for total phosphate were reported to us as mg/l as PO_4. In order to present these data on a comparable basis, these values were divided by the factor (PO_4/P), and results are presented for total phosphates as P.

2. At the time the TWQB staff transmitted their results to us, they informed us that the COD data they had secured was of "questionable accuracy, because of chloride interference."

INTER-OFFICE CORRESPONDENCE

[illegible] 113-18

TO R. D. Hall

FROM R. F. Adams

DATE 5/18/71

SUBJECT Analytical Results on EPA-FWQA Sampling of Deer Park Outfalls April 20 to April 23, 1971

During the week of May 10, 1971, I received a telephone request from Bat Shumatona of the Federal Water Quality Lab at Ada (Oklahoma) for some additional data relating to their visit to the Deer Park Works of April 20-23. He asked for information on effluent flow rates and incoming channel water on the last day of their visit (April 22-23). This data had not been available at the time they left our plant. I gave Bat the flow data he requested and asked if the analyses had been completed. He said they were almost finished and that he would call me and give me their results as soon as he could.

I called the EPA Water Quality Lab in Ada, Oklahoma, on Monday morning, May 17, 1971. I talked with Bat Shumatona regarding their analytical results on the water samples taken at Deer Park on April 20 through 23. He said that they had finished the analyses and that the data were being processed by computer at that very time. He promised to call me that afternoon and transmit the data to me by phone, as well as to send it to me by mail. I asked if any of the samples gave results that looked "out of line," or if he wanted to comment on any of the results. He said words to the effect that everything seemed okay, as he remembered. I did not hear anything further from the EPA on Monday.

I called the EPA lab again about 10:30 A.M. on Tuesday, May 18, 1971, but I could not reach Bat. I left word for Bat to call me as soon as possible.

Having received no word, I called and reached Bat at about 1:30 P.M. at Ada. I explained that I had a "package" of analytical data and lacked only the EPA data to publish a report on the comparision of results. Bat said that he "was sorry, but he had been ordered not to divulge any of the data to us since it could be the basis for possible court action." He hastened to add that "of course, it might not." In any case, Bat said that a written request for the data would have to be made of Richard Vanderhoof, Regional Director of the EPA at Dallas, and that Bat was forwarding the data to Dallas. I again asked Bat if there were any of the analyses that appeared to be high or questionable, but Bat said that he had been told not to make any comments.

R. F. Adams

R. F. Adams

RFA/db

CHANNEL WATER

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A&T LAB	DACO
MGD		115.9			115.9			115.9		115.9		115.9			115.9
OLOR															
H		7.9.			7.3			7.5		7.0		7.7			7.15
BODs		3.0			5.4					5.6		4.0			5.6
OD		85*			141			98		155		<30*			174
TSS		28			41			18		29		25			32
VSS		9			19			11		17		13			21
FSS		19			22			(7)		12		12			11
TR		14,700			14,931			16,796		16,285		15,700			15,737
TTLEABLE ATTER															
Oil & Grease								5							
KALINITY, P.		0										0			
" T.		178										164			
OTAL HARD.		2480										2,650			
T-PHOS (P)		2.6		3.3				2.5	2.8/2.9			1.9		3.2	
G.-NIT. (N)		4										<1			
H_3 (N)								TRACE							
O_3^- (N)															
O_2^- (N)															
ANIDE (CN)								0							
LORIDE (Cl)					7,786			7,900		8,136		78,200			8,154
LFATE (SO_4)												970			
OC															
ONDUCT.		29,400										31,360			
XICITY								NO KILL							
O.								6.6							
LFIDES								0							
ETALS															
As				<0.01					<0.01/<0.01					<0.01	
Ba				<0.5					<0.5/<0.5					<0.5	
B				1.1					1.4/1.7					1.2	
Cd				0.02					<0.01/0.01					<0.01	
Cu				0.03					0.10/0.03					0.03	
Cr				<0.02					<0.02/<0.02					<0.02	
Pb				<0.1					<0.1/<0.1					<0.1	
Mn				0.20					0.20/0.20					0.18	
Ni				<0.05					<0.05/<0.05					<0.05	
Se				0.05					0.01/0.01					0.01	
Ag				<0.01					0.07/<0.01					<0.01	
Zn				0.04					0.01/0.04					0.02	
Hg (ppb)					0.4					0.3					0.2

diagonal slash (/) indicates duplicate analyses

* chloride interference

#1 Outfall

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO
FLOW MGD		8.0			8.0					8.0					8.0
COLOR															
PH		7.9			7.1			3.9		3.8		6.6			6.3
BOD$_5$		3.0			2.2			5		3.7		3.5			3.6
COD		30*			156			146		182		<30*			165
TSS		17			29			7		28		45			37
VSS		7			16			1		25		21			28
FSS		10			13			(6)		3		24			9
TR		11,400			15,808			17,872		17,799		17,300			17,592
SETTLEABLE MATTER															
Oil & Grease								13							
ALKALINITY P.		0										0			
" T.		158										52			
TOTAL HARD		2,160										2,430			
OR-PHOS (P)		2.7		3.1				3.3	3.0			2.3		2.4	
ORG. NIT. (N)		2										4			
NH$_3$ (N)								TRACE							
NO$_3^-$ (N)															
NO$_3^-$ (N)															
CYANIDE (CN)								0							
CHLORIDE (CL)					8,206			10,284		9,101		9,320			9,346
SULFATE (SO$_4$)												2,530			
TOC															
CONDUCT.		22,848										34,496			
TOXICITY								69							
D.O.								7.6							
SULFIDES								0							
METALS															
As				<0.01					<0.01					<0.01	
Ba				<0.50					<0.5					<0.5	
B				1.5					1.7					1.6	
Cd				<0.01					<0.01					<0.01	
Cu				<0.02					<0.02					0.03	
Cr				0.09					0.14					0.09	
Pb				<0.1					<0.1					<0.1	
Mn				0.20					0.20					0.20	
Ni				<0.05					<0.05					<0.05	
Se				<0.01					0.01					0.01	
Ag				0.015					0.03					<0.01	
Zn				0.04					0.10					0.04	
Hg (ppb)					5					6					6

diagonal slash (/) indicates duplicate analyses

* chlorine [illegible]

Reproduced from best available copy.

#2 Outfall

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO	EPA	TWQB	Harris Co.	A&T Lab	DACO
Flow MGD		85.9			85.06					84.66					84.93
COLOR															
pH		8.1			7.5			7.9		7.4		7.7			7.5
BOD$_5$		3.5			7.6			11		7.0		3.5			7.0
COD		55*			159			122		197		170*			196
TSS		65			48			31		39		24			50
VSS		22			18			5		25		12			29
FSS		43			30			(26)		14		12			2[illegible]
TR		15,200			15,508			16,508		16,313		16,200			16,3[illegible]
SETTLEABLE MATTER															
Oil & Grease								10							
ALKALINITY P.		0										0			
" T		188										176			
Total Hard.		2,480										2,580			
Tot.-Phos (P)		2.9		3.2				3.1	3.2/2.8			2.3		2.1/	
Org.-Nit. (N)		4										3			
NH$_3$ (N)								TRACE							
NO$_3^-$ (N)															
NO$_2^-$ (N)															
CYANIDE (CN)								0							
CHLORIDE (Cl)					7,838			8,265		8,154		8,600			8,207
SULFATE (SO$_4$)												950			
TOC															
CONDUCT.		30,240										32,256			
TOXICITY								NO KILL							
D.O								6.4							
SULFIDES								0							
METALS															
As				<0.01					<0.01/<0.01					<0.01	
Ba				<0.5					<0.5/<0.5					<0.5	
B				1.4					1.7/1.6					1.6	
Cd				<0.01					<0.01/<0.01					<0.01	
Cu				0.03					0.05/0.05					<0.02	
Cr				0.04					0.04/0.04					0.05	
Pb				<0.1					<0.1/<0.1					<0.1	
Mn				0.20					0.18/0.18					0.18	
Ni				<0.05					<0.05/<0.1					<0.05	
Se				<0.01					0.01/0.02					0.01	
Ag				<0.01					<0.01/<0.01					<0.01	
Zn				0.04					<0.01/0.03					0.04	
Hg (ppb)					0.4					0.2					0.4

diagonal slash (/) indicates duplicate analyses

* chlorine [illegible]

#3 OUTFALL

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	HARRIS COUNTY	AFT LAB	DACO	EPA	TWQB	HARRIS COUNTY	AFT LAB	DACO	EPA	TWQB	HARRIS COUNTY	AFT LAB	DACO
FLOW MGD		22.35			23.06					23.00		—			23.70
COLOR															
pH		8.3			7.9			7.7		7.0		7.4			7.25
BOD_5		13			20			13		16		3.5			10
COD		30 *			174			118		186		200 *			219
TSS		52			43			14		27		39			44
VSS		26			17			1		12		20			29
FSS		26			26			(13)		15		19			15
TDR		13,600			19,386			15,992		10,435		14,300			15,072
SETTLEABLE MATTER															
Oil & Grease								10							
ALKALINITY P.		0										0			
" T.		210										170			
TOTAL HARD		2,250										2,330			
TOT. PHOS. (P)		2.6		3.2				2.4	2.4			1.6		2.4	
ORG.-NIT (N)		4										< 1			
NH_3 (N)								TRACE							
NO_2^- (N)															
NO_2^- (N)															
CYANIDE (CN)								0							
CHLORIDE (Cl)					7,189			7,414		7,259		7,360			7,505
SULFATE (SO_4)												890			
TOC															
CONDUCT.		27,098										28560			
TOXICITY								NO KILL							
D.O.								6.9							
SULFIDES								0							
METALS															
As				<0.01					<0.01					<0.01	
Ba				<0.5					<0.5					<0.5	
B				1.1					1.6					2.5	
Cd				<0.01					<0.01					<0.01	
Cu				0.03					0.05					0.05	
Cr				0.04					0.09					0.09	
Pb				<0.1					<0.1					<0.1	
Mn				0.20					0.20					0.18	
Ni				<0.05					<0.05					<0.05	
Se				0.01					0.01					0.01	
Ag				<0.01					<0.01					0.05	
Zn				0.01					0.04					0.03	
Hg (ppb)					0.7					0.7					0.5

diagonal slash (/) indicates duplicate analyses

* chloride interference

Reproduced from best available copy.

#5 OUTFALL

	(4-21-71)					(4-22-71)					(4-23-71)				
	EPA	TWQB	HARRIS COUNTY	A+T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A+T LAB	DACO	EPA	TWQB	HARRIS COUNTY	A+T LAB	DACO
Flow, MGD		2.6			2.6					2.6		—			2.6
Color															
pH		8.1			7.7			7.6		7.4		7.6			7.55
BOD_5		4.5			22			24		23		4.0			20
COD		30*			131			90		164		190*			167
TSS		23			28			14		30		28			41
VSS		9			10			1		23		18			34
FSS		14			18			(13)		7		10			7
TS		12,700			12,822			9736		14,075		13,500			13,165
[illegible]															
Oil & Grease								115							
Alkalin. P		0										0			
" T.		222										216			
Tot. Hard.		2,040										2,120			
Tot. Phos. (P)		2.5		2.7				2.0	2.2			2.0		1.9	
Org. Nit. (N)		4										3			
NH_3 (N)								TRACE							
NO_2^- (N)															
NO_3^- (N)															
Cyanide								0							
Chloride					6,628			6,806		6,891		7,000			7,189
Sulfate ($SO_4^=$)												310			
TOC															
Conduct.		25,312										26,880			
Toxicity								NO KILL							
D.O.								5.0							
Sulfides								0							
Metals															
As				<0.01					<0.01					<0.01	
Ba				<0.5					<0.5					<0.5	
B				1.0					1.6					1.1	
Cd				<0.01					<0.01					<0.01	
Cu				0.03					0.03					0.03	
Cr				<0.02					0.09					0.09	
Pb				<0.1					<0.1					<0.1	
Mn				0.14					0.12					0.14	
Ni				<0.05					<0.05					<0.05	
Se				0.01					<0.01					<0.01	
Ag				<0.01					0.015					0.03	
Zn				0.02					<0.01					0.02	
F (ppm)					1					0.8					0.7

diagonal slash (/) indicates duplicate analyses

*chloride interference

MR. YANTIS: Now, Mr. Luyties.

MR. HENRY A. LUYTIES
PRESIDENT, H.E.P., INC.
LA PORTE, TEXAS

MR. LUYTIES: First of all, gentlemen, I have some photographs which will supplement perhaps some of the photographs displayed in the lobby.

Some of them aren't dated and named and others follow within the 3-day period. If I may just submit them as a data point, these are nonprofessional photographs of the Houston Ship Channel.

CHAIRMAN STEIN: We will take them as exhibits if you wish.

[The above-mentioned photographs, marked Exhibits, are on file in Washington, D. C. and Region VI, Dallas, Texas.]

MR. LUYTIES: Thank you.

CHAIRMAN STEIN: Thank you very much.

MR. LUYTIES: At this point I would like to request that in addition to the photographs, my statement, my wife's statement, (Mrs. Patricia Luyties), and

HEP's statement before the President's Commission on water Pollution here in the Rice Hotel on January 14, 1970, be entered into the record. That -- if it is possible -- will save me the time of referring to them again.

CHAIRMAN STEIN: Do you have copies of them? I just want to see how long they are.

MR. LUYTIES: They are available, Mr. Chairman. They are a matter of record.

CHAIRMAN STEIN: Without objection, they will be entered into the record as if read. You may make copies. Don't give them out. You may never see them again.

MR. LUYTIES: All right. Thank you.

[The above-mentioned statements follow.]

PUBLIC STATEMENT: Before President Nixon's Commission on Water Pollution
Rice Hotel, Houston, Texas Jan. 14, 1970

GENTLEMEN:

The time for mega-dollar regional and basin-like studies, illustriously impaneled probes, trumpheted show-cause hearings has expired. Extension of permits prior to compliance and exchanges of written explanations in response to illusions of pending legal action are unnecessary.

Over 4½ years ago, an era of equity and acceptance of promises as examples of good faith were begun by the Texas Water Quality Board. The annual primary treatment via public utterances of the Board - stating it will submit its complaints to the state attorney general for prosecution has begun - AGAIN.

Extension of the time-table calling for immediate correction of our water pollution problems, because nature can adopt, is ridiculous. Whispered denials of industrial reprisal against employees who know of inadequate and deliberately deficient municipal and industrial pollution abatement practices continue.

The industrial commission painting a picture of no pollution in Texas is sanctioned by the state.

Appointed state officials dodge enforcement of standards; passing the polluted hot potato to county and local officials (who say laws passed by the state Representatives allow citizens to effect the solution). The problem of pollution is call exaggerated by certain Federal advisors. (U.S. NEWS & WORLD REPORT, DR. DUBRIDGE)

Gentlemen, when will the talk and useless expenditure of funds end - and the solutions begin?

Two services must be performed: (1) Assure public awareness of the cost of eliminating pollution, and (2) ACTION.

Henry E. G. Luytles
1st Vice-President
H.E.P., Inc.
P. O. Box 661
La Porte, Texas 77571

471-4293 (after 5 P.M.)

PUBLIC STATEMENT Before President Nixon's Commission on Water Pollution
Rice Hotel, Houston, Texas Jan. 14, 1970

GENTLEMEN:

I'm fed-up with political weasle-words, enforcement excuses, threats of reprisal, and wails of monetary pain. I've been patient with politicians and industries and municipalities, and they have rewarded my sympathy by polluting more than ever.

In a valiant attempt to keep this to 2,000 words or less, I will use one small example of how completely inept Texas agencies are to cope with pollution:

I call your attention to four (4) newspaper articles as follows:

(1.) HEADLINE: Few Clear Lake Sewage Plants Meeting Antipollution Standards.... and reading in part...."sewage treatment plants in the Clear Lake Watershed must begin meeting antipollution standards or their operators may face legal action........El Carey is in compliance by less than 56%......"

This article was from the Houston Chronicle, Thursday, July 29 - 1965

(2.) HEADLINE: CLEAR LAKE POLLUTION.....and reading in part...."Joe P. Teller, project director, says problems still exist. El Carey is one of the worst in the district and has been operating without a permit since 1964......'When we exhaust all avenues of persuasion, we will turn to the Attorney General's office..' Teller said...."

And, this article was from the Houston Chronicle, Wednesday, December 21, 1966 (17 mos. after the first article, and over 2-years since TWQB was aware that El Carey was operating without a permit) in severe violation of standards).

(3.) HEADLINE: POLLUTION CASES DUE PROSECUTION.... and reading in part....."The Texas Water Quality Board Monday called El Carey the 'most flagrant violator,' in the Clear Lake Watershed......"

And, this little goodie was lifted from the Houston Chronicle, Tuesday, Jan. 13, 1970 (5-years since the first article and 6-years since the TWQB admitted El Carey was operating without a permit, in critical violation of the already inadequate and weak standards).

In conclusion, our news media announced yesterday, with some degree of lights, horns, whistles and bells that the Texas Water Quality Board is, quote, "taking unprecedented action and turning over cases alleging illegal polluting to the state's attorney general's office for prosecution...."

And, to anyone in this room who believe this to be nothing more than an amazingly miraculous accident that just happened to coincide with the President's Commission on Water Pollution visiting the Houston area, I say - BALDERDASH!

Reproduced from best available copy.

(Mrs.) Patricia L. Luyties
215 Falk Avenue
La Porte, Texas 77571
471-4293 (after 5 P.M.)

H. E. P., INC.
(Help Eliminate Pollution)
P. O. Box 661
La Porte, Texas 77571

January 14, 1970

The President's Committee on Water Pollution
Public Hearing, January 14, 1970
Rice Hotel
Houston, Texas

RE: Statement to be entered into the permanent record of these proceedings.

There is little our Corporation can say that hasn't been echoed before. Perhaps that is one of the problems - everyone studys and talks about pollution, but there is too little done about it.

The question of waste treatment and disposal is, literally, a question of survival. At all levels of the community - from farmer to governor - failure to accept this has retarded control progress and shortened the time span left to take corrective measures.

Pollution is man-made wastes, released in concentrations sufficient to be unpleasant, and to cause damage to health and property. Who can control what man creates, except man himself?

The big emphasis in Harris County, Texas, at this time, seems to be Air Pollution. Few realize that 70% of the oxygen upon which they depend for life comes from tiny green plants in our oceans. Those bodies of water can become so polluted that the tiny green oxygen making plants cannot grow, or multiply, or survive. If this happens, there will be no air to become polluted and no people to care either way.

Death is inevitable. But, who among us wants to "go" in a cesspool of his own filth and sewage?

As for the living, man's mental attitude and physical capabilities definitely relate to his environment. When his surrounding are pleasant, man is generally happy and labors productively. When his atmosphere is smelly and makes him or a member of his family ill, may becomes discouraged and his output languishes.

Man cannot continue to abuse his limited water, land and air supplies - not and survive.

Water quality standards have two purposes: To restore polluted waters, and, To preserve those that are still clean.

Water quality standards must solve two problems: Pollution, and, Supply.

Re-use of water is absolutely essential, and constant research must be given to treatment techniques which will cope with the advancing technology that introduces at least 500 new chemicals and compounds each year.

Odor is a nuisance. But removing smell does not make a dangerous chemical less Toxic - so odor, as such, is not the main concern.

Reproduced from best available copy.

It is nonsensical to wait, while pollution grows worse and worse, more deadly and more deadly, for the "perfect" control system - one that takes no space, requires no maintenance, uses no power, and is free.

If this attitude prevailed through the centuries, man would still be living in caves, eating limited and uncooked food, dressed in his "altogether."

Once pollutants are released into the water, control over them is impossible. The more exotic these wastes, the more complicated and expensive the process by which they are cleaned to be used again. The obvious conclusion is that pollution control must begin at the point it originates. And, this point of origin should bear the cost!

Pollution agencies at all levels have a responsibility to keep the public apprised of action they intend to take or have taken. Agencies can little afford to criticise "lack of public interest," when meetings aren't given reasonable notice and when those meetings are held between 8 A.M. and 5 P.M. (when most men must be at their respective jobs).

It is the citizen's responsibility to leave no doubt in anyone's mind that pollution is intolerable, and to insist on safe standards, with the enforcement of same.

The problems of pollution have too long been quieted by the backroom money rolls of special interest lobbiests. But these villains are going to have competition, beginning this year.

H.E.P., Inc. - a people's lobby for preserving earth from pollution - will do everything within its power to carry the demand for clean air and water from the lowest official to the highest, before-during and after elections.

Pollution can be controlled. In many cases, pollution can be prevented altogether. Our Corporation does not accept the excuse that the mightiest nation on earth - a nation already visiting outer space (and pollution another satellite) - cannot control its own wastes.

Pollution control techniques and equipment must keep pace with upgraded and increased manufacturing.

Variances must be given only in the most extraordinary circumstances, and extended/renewed only under the most valid conditions.

Companies, industries, municipalities should be required to be bonded, as a sign of their good faith and for the protection of others.

Penalities for violations must be prompt and significant.

Man, in his limited environment, has little time to restore that which has been abused, and to protect that which is still safe and useable.

Let us get on with it.

Very truly,

H. E. P., INC.

Charles E. Koehler, Pres.
Henry E. G. Luyties, 1st Vice-Pres.
Patricia L. Luyties, Sec.
Mary G. Koehler, Tres.

l:aj

H. E. P., Inc.
(HELP ELIMINATE POLLUTION)
CORPORATE OFFICE
P. O. BOX 661
La Porte, Texas 77571

June 11, 1971

ENVIRONMENTAL PROTECTION AGENCY
Enforcement Division
Washington, D.C. 20460

Attention: Mr. Murray Stein

Subject: Position and presentation of Mr. Robert M. Moore regarding offshore drilling along the Texas Gulf Coast, presented to the EPA Conference at the Pollution Enforcement Conference on Galveston Bay. Mr. Moore's presentation was made on June 10, 1971

Dear Mr. Stein:

H.E.P., Inc. (Help Eliminate Pollution) wishes to go on record in its wholehearted support of Mr. Moore's presentation and position with regard to offshore drilling along the Texas Gulf Coast. We concur that offshore drilling should be no closer than 2½ to 5 miles off the Texas coastline. In addition, that no drilling be authorized by the EPA or the Corps of Engineers within the confines of Galveston Bay.

Sincerely,

H. E. G. Luyties,
President

HEGL/lf

MR. LUYTIES: In addition, we at HEP would like to support the position taken yesterday and the recommendations on the offshore drilling in the Galveston area. I believe Mr. Moore made that presentation.

But for myself, Mr. Stein, Mr. Vanderhoof, members of the Texas Water Quality Board, and distinguished guests, you have heard and read by now, and have heard by now technical reports and rebuttals, addressed to the problems of the pollution of Galveston Bay and related waterways. It would be inconsiderate of me to repeat any of these at this time.

It is time now for you to lend your ear to the people. They do not claim to be technical supermen or infallible diagnosticians, but they are no less alive, and they work with no less dedication, and they are entitled to the same hearing and the same consideration as the others.

Through no fault of your own, agencies and commissions are obliged to hold conferences such as this one during working hours. Consequently, the greater part of such audiences are always comprised of industrial and State management. Few of the masses of the people who suffer the most from environmental degradation are able to take time off from their jobs and appear.

I am always concerned that you do not see or hear the voices of the people. This is one of the reasons that HEP, Inc. was formed. We are a people's lobby, and we represent them when they are unable to represent themselves.

Today, I speak for them. Today, I plead for them. It is their voices you hear, through mine.

When HEP was first founded, we appealed to State boards and agencies for help and offered our assistance to them. We were ignored on both counts.

We then appealed to the Federal Government -- the National Air Pollution Control Administration and the Department of the Interior (the two Agencies who were then responsible for air and water pollution, respectively.) Their response was immediate and positive. Both agencies have provided HEP with literally thousands of pieces of literature and publications, which have enabled HEP, Inc., to fulfill one of its purposes -- that of educating the public to the problems that we all face where the environment is concerned.

Furthermore, NAPCA sent a representative, Miss Marilyn Paul, to meet with us on several occasions, and her help and counsel were invaluable to the early programs that HEP instituted.

After these early programs, and after it became apparent that HEP, Inc., was growing in number and in influence, some of the State agencies began to cooperate with HEP to some degree.

However, we have always received answers and help from any Agency of the Federal Government to whom we have appealed for information, literature or assistance.

One of the problems in the State of Texas is not just with the agencies responsible but with those elected representatives in Austin, and the committees appointed through favoritism and through pressure from special interest groups.

There are a few -- a precious few -- members of both Houses in Austin who have worked dilligently and courageously for environmental legislation. However, their legislation gets locked up in committees chaired by narrow-minded and unyielding individuals, who, for reasons known only to themselves and those they serve, do not even permit the legislation to reach the Floor for a vote. Only 5 of 35 major constructive conservation-pollution bills were passed by the House.

The shame of it is that this is common knowledge, and nothing is done to deny that this happens every year. The special interest lobbyists are so certain of their power structure that scandalous and unthinkable occurrences are allowed to go on unchecked.

The leaders do not suffer. The people do.

The founders of HEP, Inc., have an undivided opinion that as long as local and/or State agencies will not or either cannot perform their functions to protect the people and the enviornment in Texas, we should solicit help from and offer our support to the Federal Agencies in doing the job the State either cannot or will not do!

Perhaps all of you have asked why and how could the pollution situation along the Texas Gulf Coast have been permitted to become so severe? So there will be no doubt in your mind, I will greatly abbreviated give you a small insight into HEP conclusions.

Men of great influence within the State would have the people believe that they are concerned about the environment and that they intend to help preserve it.

Let me show you how concerned some of these men are.

An advertisement from the Texas Industrial Commission, representative of some of the most powerful lobbies in Texas, states: "Texas doesn't have a hostile environment. It doesn't have a serious pollution problem."

Chester C. Wine, the Industrial Commission Chairman reacts to the amount of water used versus the amount of water available by saying, "Insofar as industry is concerned, water never became the problem that we expected."

He said this despite the fact that water consumption in the Gulf Coast region is 4 times the amount coming in to replenish the supply.

Mr. Wine comments further, "You can go

anywhere in the State and see blue skies, swim in clear lakes and fish in untainted streams."

Mr. Gordon Fulcher of the Texas Water Quality Board appeared this past Monday on KTRH - Radio. At one point in the program he stated, "Any industry that you don't want here in Houston would be welcomed in my hometown. There are other places industry can move if you don't want them in Texas."

Now, this is indicative of the attitude toward industrial pollution control in Texas. The inference is that if we oblige industry to control its pollution, industry will move elsewhere. So the conclusion is, let industry pollute and destroy the environment. This is our bribe to keep them here.

Of course, if the statement weren't so pathetic it would be funny. No one is trying to get rid of industry. And industry can ill-afford to pack up in the back of a station wagon and sneak across State lines at midnight, leaving their resources and the port behind them.

And unlike 10 years ago (when concern for the environment was not so widespread), there are few communities today who would welcome such a transfer, unless and until industry would guarantee that along with economic growth and prosperity they would also adhere to strict pollution control measures and prevent desecration of the new environment.

And yet with Mr. Fulcher making such a statement over the air, it should substantiate HEP's concern that the primary concern among top State officials and agencies is for industry and not for the people nor the environment.

Recently an amendment to legislation in Austin increased the interest rates on bonds. It was reported in the press as a "... scheme by State officials to outfox the Federal Government."

A real sleeper in the legislation enables the Texas Water Quality Board to issue funding to municipalities via the Texas Water Development Board to review and approve plans prior to construction, to inspect the facilities during construction, and to take appropriate action to insure that construction conformed to the plans and specifications.

This they have the power to do as we interpret it. However, there is no way humanly possible to accomplish these paper-printed, good-sounding things with their present budget and staff.

Our analysis is that here is another law -- worthless -- because it cannot be enforced, even if someone wanted to do so.

No law, however just, is worth the time to print if it will not and cannot be enforced. And inadequate enforcement is just another problem in which Texas excels.

A citizen who lives along Galveston Bay recently saw splotches of thick, brown pollution floating slightly beneath the surface of the water and reported it to the Texas Department of Parks and Wildlife and the local office of the Texas Water Quality Board.

Apparently, all the officials could do was take samples and wring their hands. Three days later there was a fish kill close by. Some daring and courageous members of the news media suggested that industrial pollution may have played some part in the fish kill. Others said it was probably due to God's summer weather and warmer temperatures.

Texas, unfortunately, is no different from any other State or nation in the world. Eventually, the demand for water will far exceed the supply. And yet Texas has made no significant effort to require the reuse of water supplies, which is absolutely essential to man's survival.

It is our opinion that the reuse of water has not been stressed as it should be, because in order to be reused liquid wastes must be adequately treated. And adequate treatment is anything but a routine way of life in Texas.

Officials from all corners scream cost, disregarding the fact that the longer adequate treatment is delayed the more costly it will become.

Also ignored is the fact that pollution and all of its effects is as costly as the control of it would be.

I restrain myself with difficulty to keep from screaming, "Stupidity! Madness!"

I am able to restrain myself only because I know that the problem is not really stupidity. It is not really madness. It is not even money! The problem is insatiable greed!

Pollution cannot be controlled -- not at this rate. We feel it can be controlled. The problem is that no one is willing to foot the cost. And this total disregard to reality (and the inevitable results) can and will heap upon man the very same things that such attitudes have brought upon man throughout history -- utter and total disaster!

HEP, Inc. asks again and again, "Why? Why let it reach that point?"

Pollution is a cancer. It will not go away if we ignore it. It will not cure itself. It cannot be cured or controlled with aspirin. And if we permit it to continue unchecked, we will not be able to control it at all. It will destroy us. And our shameful epitaph will not include what we have done but what we have not done.

The Texas Legislature had the opportunity in the session ended last week to adequately fund the very agencies responsible for pollution control. The request for funding was cut to shreds. Reports came to HEP, Inc. from Austin that the agencies were told to back off from their efforts to correct pollution problems -- to take it easy on the industrial polluters -- or face complete neutering by lack of funds.

Representative W. S. Heatley, who served on one of the reviewing committees, even recommended that if we were really going to clamp down on polluters that we should begin with God and sandstorms. This same man held the reins of the funding to the Texas Air Control Board and the Texas Water Quality Board, and his position was by appointment.

Notice, that I have referenced God and His contribution to pollution on two accounts. It becomes painfully obvious, after a short while, that when officials run out of excuses -- when they are looking around for someone to blame who will not appear at a meeting to talk back -- they select the Almighty.

Letters from HEP, Inc. to the Governor, the Attorney General, to Mr. Heatley, and to others who were in positions to oblige Mr. Heatley to at least be fair, were not even acknowledged by the Governor, the Attorney General or Mr. Heatley. Two legislators did respond.

Pollution should not ever be a political football. However, in Texas the power structure makes it so.

Speaking for the people HEP, Inc. represents, I solemnly and earnestly plead with you not to be misled by platitudes, by promises, or by denials that pollution is a serious problem in Texas.

I solicit your intelligent evaluation of the evidence presented to you Monday in the "Report on Pollution Affecting Shellfish Harvesting in Glaveston Bay, Texas."

I repeat that which HEP members have been asked again and again by fishermen along the Texas Gulf Coast, "Why should we be forced to stop fishing? We did not pollute the waters. Why doesn't someone force those who are polluting the waters to stop polluting the waters? We aren't as powerful, but we are as human as anyone else. We have the same right to engage in our business as the other fellow has in his. We don't throw our garbage and trash in their offices. They wouldn't permit that. Why should we be penalized because they pour their poisons into our areas?"

Industrial pollution and improperly treated municipal sewage is ruining the livelihood of the fishermen -- and those who depend upon the fishermen for their livelihoods.

Here is an example of human beings being forced out of business and the lives of those who eat the polluted marine life being jeopardized -- all because no one will enforce pollution control on those who are guilty.

This is not representative of the true American spirit. It is downright immoral.

How much longer are we going to tolerate such lopsided-favoritism?

The solution is not to stop fishing; the solution is to stop polluting.

The scale of justice is off balance. We plead with you -- help us right it.

Thank you.

CHAIRMAN STEIN: Thank you. (Applause.)

MR. YANTIS: Mr. Luyties, without going into detail, I can assure you that God does talk back. He talks in terrible ways with a terribly swift sword. So no one here believes that there is not a price, not a retribution, not a problem to be cured. I can guarantee you God talks back.

Since the other two HEP speakers wish to follow Dr. Quebedeaux -- it is now 5 minutes after 10.

Walter, we will break for a secretary's rest at a quarter to 11. Is that all right with the reporter, at a quarter to 11?

REPORTER: Yes, sir.

MR. YANTIS: Just make your remarks to break there for 15 or 20 minutes, and then pick back up at that point.

(Short recess.)

MR. YANTIS: Dr. Walter Quebedeaux, Director of Air and Water Pollution Control for the Harris County Government.

DR. WALTER A. QUEBEDEAUX, JR.
DIRECTOR, AIR AND WATER POLLUTION CONTROL DEPARTMENT
HARRIS COUNTY
PASADENA, TEXAS

DR. QUEBEDEAUX: Thank you.

MR. YANTIS: By the way, to the extent you have things written, will you give it to the court reporter?

DR. QUEBEDEAUX: Mr. Yantis, I will not insult the intelligence of the people that are going to read the report or hear it by reading it verbatim. She already has copies just like you have before you.

Now in the last 4 days -- well, my name --

DR. W. Quebedeaux, Jr.

I believe this is the procedure, sir -- my name is Walter Quebedeaux. I am the Director of the Pollution Control Section for Harris County.

In the last some 4 days, we have heard from many so-called experts. Now I have no way of knowing whether they became experts before because they are 100 miles from home or whether they really have some expertise or experience behind them.

So to get that behind me, the 1st Exhibit you will find will be a biographical sketch for myself and various activities that I have taken part in.

Now there are several things that at a later point I will go through in some of the discussions that we have had before.

Exhibits will be Exhibits 2, 3 and 4 and are presented to you as information that has come out of the Attorney General's office.

One is a speech by Mr. Tyler, and one is an interoffice memorandum concerning the Hatch Act, and the other is a statement that Mr. Tyler made before the Senate Finance Committee.

That statement I think has been reported in the news, but I didn't happen to see it, and I had a little difficulty getting this one from some of those that did have it. But I think it would be interesting for you, Mr. Stein and Mr. Vanderhoof, to read the comments of Mr. Tyler and his opinion of some of the difficulties that we are having here.

Now we have heard a whole lot about lack of funds and lack of people. For the record in December of 1953, our organization was organized by the Harris County Commissioners Court, and our first budget was something like $10,000. There was a secretary and 3 of us, and I will guarantee you that for about a year or 2 years in that period I was lucky if I got 5 hours sleep a night. But I knew every back road around the channel, whether it was air or water that I was looking at.

Two of the people I had obtained because they had been water samplers from an earlier program. So there was only myself to work in the technical area of pollution control.

Now Exhibit 6 is a paper that I gave in Argentina. And at that time -- this was 1965 -- you will see in the tables back on page 6 a comparison with the budget and personnel of areas around the country.

Dr. W. Quebedeaux, Jr.

I wish to point out one thing -- that the Harris County program was the first that combined pollution control, wherever it might be, and we did undertake water and air pollution control, both. And I think EPA now has set up that way. And I think it is the only proper way for us to fight pollution, because unless we do that --- If we had two agencies what we find is that the one that has the least enforcement is going to allow the most pollution. Now I have never seen any place in the country where that isn't so. Because regardless of the beautiful laws that you have on the books, it is not any good unless it is made to work.

Now Exhibit 7 is a good presentation that I gave before the Salt Institute in Chicago in 1969. There is one thing that I want to point out to you on page 3. I am referring to an article that appeared in the Saturday Evening Post in 1966 where they, under the general title of "The National Standards of Air Pollution," gave four favorite excuses that are brought forth for not putting in pollution control.

No. 1 is that control of the emission is technically impossible. Well, I think anyone with any technical background knows that that is just a bunch of malarkey. I have not seen anything in water pollution particularly that we can't control if we put our minds to it.

The second one is that pollution control is economically ruinous. Well, gentlemen, I submit that the court decision, for many years where you have cases involving pollution, the cost of controlling that pollution is not a material fact to be presented in that case. Now a lot of judges will hear it and they hear them here, but our case decisions point out frequently that this is not a material factor. So the one that causes the pollution is the one that has a duty under our statute, both in this State and every other state that I have looked at, as well as under the Federal statute, to clean it up. It is a proper item to be included in the cost of the product that it is making. And I submit that this excuse doesn't have any foundation.

The third one is "I will move my plant." Well, that is just about as silly as anyone can dream up. As a matter of fact, I think if you will go back through some 18 years that they have been here, Harris County has gotten a reputation nationwide of being kind of rough on our polluters. I hope it continues. I will try to make it that way. There are some handicaps I work under, but I will get into those later.

But as far as moving a plant, it is inconceivable that any plant is going to pick up --- Well, let's take a big one. On the tax rolls this particular plant is down on the tax rolls for $200 million worth, and that same big plant pays taxes on something like 23 percent of that. It is nowhere near fair market value or replacement value. But it is just as silly for them to, even at the $200 million worth, for anybody to say that they are going to pick it up and move elsewhere. Big industries don't do that.

In the past, I have been told this bv many industrial folks -- that their company and others of their knowledge do keep a sort of fund stashed away under a different distribution number or name or title or what-have-you in their budget, and that they can reach into and expand that when it becomes necessary.

I think it is true. I have seen sometimes where suddenly overnight in the industry, the industry suddenly has quite an amount of money to spend. But you have got to bring them down to the "lick law" or you don't do any good.

And then the last one is about the silliest, and at the same time it is the truest. When we have failed to accept any of the 3 previous excuses which are presented by all of the chambers of commerce -- ours isn't any different -- and they see that the enforcement officer is going to really take them to court, their answer then is, "Take me to your leader."

Now you can assume what that means any way you want to. Sometimes you can assume that they think that by talking to the leader that they can get some more time, or through a political tradeout, or whether they really mean that they want to negotiate -- I have seen them work both ways.

There are some industries here that don't even want to go that way, and we know we have had a case filed and they refuse to come to our conference table.

Well, under those circumstances, gentlemen, there is no alternative for an enforcement officer but to go in and ask for the ultimate which is, "Chop off their head." And that is what you have to do.

Now if that doesn't bring them to the conference table where you can get an abatement program, then that is what an enforcement officer with a duty like mine has got to do. I don't like to do it that way. I think really, court action is the last means.

But when nobody will give any abatement program, and when they give me so-called standards that have been doctored so that any testing methods that I might use on that sample will not give adequate or valid results, gentlemen, that is my alternative. And that is what I will continue to do.

Now, on the next one, Exhibit 8, it is a paper on Pollution Control Case Histories. I think in this one I referred to Kaiser Steel there in California. And at this point, let me apologize to the ladies for some of this bad copying. But after staying up until about midnight each of these nights with that machine going, after I got to the office from leaving here until then, it does get a little hot and wants to stop and recuperate a little bit. But some of these copies are bad because of the machine. It was overworked. And others were bad because I had to take these copies from a bad copy, so I am sorry if they do give you a problem.

But the Kaiser Steel instance in Fontana, California, to me is a monument of what can be done. They buy all of their water used in that plant from Fontana, California. It is my understanding now that the makeup water they use is somewhere around 2,500 gallons per ton of steel produced.

Now that is not an industry figure. The usual industry average is somewhere in the neighborhood of 64,000 gallons per ton of steel.

There is no water discharged out of that plant. The only water that leaves, leaves by way of evaporation from cooling towers.

They have found on the air side that, by putting excessive controls in, they can collect many of the rare elements that are real valuable, and they also find that it more than pays for their control efforts as well as their machines. This is I think a situation that a lot of these industries in our area could go ahead and follow.

Dr. W. Quebedeaux, Jr.

I do mention I believe in here that back in 1952, in connection with Shell Chemical, I was working for the State Health Department at that time getting information in the area for air pollution. At that time in Deer Park you couldn't have a house and expect it to stay the color you painted it. When it came time for Shell Chemical to come up in September they had had a sulphur recovery unit on stream for about 3 days.

Except for those 3 days, they have made better than, oh, between 75 and 100 tons of sulphur every day. They amortize the plant in something like 90 days. That is an awfully good return on your money.

We now have sulphur recovery plants all up and down the channel. Even in one refinery that uses sweet crude. They are well aware that their plants will take them 15 or 20 years to amortize, but it will do it

There are one or two other incidents here. The examples that we can find here on this channel of good work are legion, but there are also, at the same time, others that are just as detrimental.

Now I have a reputation in the Federal Agencies, as one of the Dallas representatives says, of being a "nuisance man." Well, I am.

The next exhibit which is Exhibit 9 --

CHAIRMAN STEIN: I don't know where you got that reputation, I didn't hear it. I heard you were a strong, silent Texan. (Laughter and applause.)

DR. QUEBEDEAUX: Well, you must have been talking to the wrong person or they don't know me. (Laughter.)

But one of the directors there in Dallas -- I think it was last year -- used that phrase because I do have a strong feeling for common law nuisances.

I prosecuted those kinds of cases, and I think it is the most terrible weapon that a lawyer can use. But unfortunately, about 98 percent or more of the lawyers that I meet don't even know what it is.

I was going to ask you, Mr. Stein, maybe sometime later, what you really meant when you were talking about "nuisance level" in the channel. You referred to it I believe on Monday. I was just curious as to just what your definition of "nuisance" was.

CHAIRMAN STEIN: I didn't use that in the legal sense when I said it. I think you are entitled to an explanation.

What I meant was that if you have a river, perhaps in which you have a dissolved oxygen level of 2, and it goes below that and turns septic, you begin to have a sight and odor nuisance in the river. The stench can be apparent to anyone that goes by. That is to the limited sense that I meant that phrase.

DR. QUEBEDEAUX: Well, I have got some other comments, and I will carry that along with me about the septic part of it.

But you may not realize that the Article No. 1, which you will find in Vernon's Texas Civil Statutes, is a very short one.

It says, "The common law of England, so far as it is not inconsistent with the Constitution and laws of this State, shall together with such Constitution and laws, be the rule of decision and shall continue in force until altered or repealed by the Legislature."

There have been several times when I have been to the Legislature, where there was at least some talk about repealing our criminal nuisance act, which is just straight common law. And as you know, the Water Act now, as well as the Air Act, are actually common law language.

So common law in Texas is still the black letter law, and it is an awesome, powerful one if you use it.

Then we come to Exhibit No. 10. Now this is the one that a lot of people don't really know about. In essence, what it says in the last sentence is "That the Commissioners Court of any country shall have the authority to appropriate and expend money from the general revenues of its county for and in behalf of public health and sanitation within its county." That is pretty broad. That's what our group was organized under. And it was the pressure from the citizens groups. Some of them are not with us any longer. Some of them are. You might hear from one of the ladies later that started out on it.

The pressure was on the Commissioners Court and they pulled this article out and organized our group back in 1953. But this can be the vehicle for contacts between Commissioners Court, through the county or water district, for getting together on regional planning or regional plans if that is the way it is desired to go.

I well agree with Dr. Busch, and I objected to it when it was in the Legislature, about the formation of the Gulf Coast Waste Disposal Authority. The prime thing is that we have another taxing body. And No. 2, as Mr. Falk from the Clear Creek Basin Authority brought out, "Who is going to enforce against them when they don't do right?" I don't know of anyone that is going to do it.

But there really was no need for that. But be that as it may, you might be interested to know that that act -- and I didn't find this out and it wasn't told to the committee there in the Legislature when it was being considered -- but large portions of that act were written in definite law firms that represent the industries here in Houston. And when it was being explained at a meeting later, these law firms are the ones that got up and explained the portions of that act that they wrote. That is why it doesn't hang together so good, and it also has such gaping loopholes in it. The primary one of which, in my opinion, is that it is a creature under the jurisdiction of the State Water Quality Board. If that act was necessary and if that Authority is to be expected to have leadership and expertise, why not set them on their own bottoms instead of having everything that they do be approved by the Water Quality Board? I can't see it, but that is the way it was written.

Now then, at the same time in 1962 that the Water Quality Board -- well, at that time I believe it was the Water Pollution Control Board, a different name from its predecessor -- at the same time that was passed, you will find that Article 6252-13 was passed. That article is just about as close as this State gets to an administrative act. That article requires procedural rules and that there be proper notice which we don't get -- myself and others that we should be given -- and that upon final determination, all State administrative boards must file those procedural rules with the Secretary of State.

Now there is no penalty for not filing. It is only just pushing back the effective dates, because they can't become effective regardless of what date they are passed by the Board until 30 days after they have been filed.

Now we have been up there recently and checked some of the -- well, everything that was on file at the Secretary of State -- and we found a whole lot of the things that the Water Quality Board hadn't bothered to file.

So, in effect, they are noneffective now, although they are going on them. But that was passed the same year that the first water quality act was passed.

And at this point it might be interesting to know that there were two of us that appeared before the subcommittee that was considering that first water pollution act. One of them was an attorney from Corpus Christi, Mr. Haden Head, and myself. Mr. Head had just come from a conference where there was the Texas Chemical Council, Texas Manufacturers Association, members of the Health Department, Mr. Smallhorse himself, and there was one other lobbyist that I forget at the moment.

So when he comes in, he recommends that everything below the enactment act be struck and that his proposal be placed in it. Well, it was. There was only one instance where the subcommittee made a change in Mr. Head's proposal. That was in the definition of pollution. And, as far as I am concerned, that is about the best thing in that act. And if we followed it to the letter, you wouldn't be here today.

As far as I am concerned, if it is in our books as a law, those of us in enforcement regulatory agencies have duties to enforce it to the letter -- not to pick and choose the phrase that we like for this man or that man. We have got to enforce it all. That is a complete common law definition of pollution.

It was picked some years -- 2 or 3 years later -- and essentially used for the Air Pollution Act. And if we stick to that definition, we wouldn't be wasting our time this week. Maybe not wasting, because I am glad you are here. (Laughter.)

I am sorry.

But I think there is a lot that has to be said, and there are going to be some I am sure that will take personal objection to what I have to say. But those that know me and that have known me any length of time, know I intend to have my say. Then that is water under the bridge. From that point on, let's get to work and clean it up.

And at this point I might refer to the EPA, the Water Quality Board, and the Houston Chamber of Commerce. And the worst thing I can think to say is "a plague on all three of your houses." (Laughter.)

I think all three of you have some criticism coming, and I am going to say it, and then let's forget it and go on from there if you please. (Laughter.)

In connection with the EPA, I am not even going to use the theatrics of calling that a "black paper." I think that is unbecoming. But, that report -- as an attorney, Mr. Stein, you should know full well that the information there is not sufficient to stand up. My complaint further is that the lacking evidence -- the holes that are in that booklet -- was available. All Mr. Kallas had to do was come to the office and ask for it. I didn't know that he was writing a book or Mr. Gallagher was writing it. But it is available and in some of these later exhibits you will get it.

Now I would never ask Mr. Gallagher for affirmation or denial. I feel sorry for him. I think

I was in the position he was when I worked with the Texas Company there in New York. I was given a whole mass of totally unrelated data and my superior said, "This is the results we want, the conclusions and the summary and recommendations. Take this and find out how we get there."

From that report, that seems to be about the same problem I had in that instance. There is so much lacking.

And I object to the use -- although you seem to like it, Mr. Stein -- of calculating everything to pounds per day. That disguises what you are really looking at. You don't know whether 200 pounds BOD, for instance, is put into 1,000 gallons of water, or a million, or 10 million, or 100 million. And when we just take the cards or the printout that presumably are numbers from the permits which you have been issued, why we just don't really have any real data to do anything with.

So I feel sorry for Mr. Gallagher. I hope he doesn't take this as a personal attack; I don't. But he did the best he could with what he had. But there was stuff available that could have been given to him where he could have done a lot better job.

If we go on down to Exhibit 12, you will find Article 8280-311 which is the Clear Creek Basin Authority. You heard Mr. Falk talk about it. I believe that was the one on -- was it Tuesday?

MR. YANTIS: That is right.

DR. QUEBEDEAUX: They asked me before this Legislature whether or not they should stay in an organization -- stay as an entity, legal entity.

My suggestion was that as a legal entity, it still gave them -- regardless of whether they had effective funds to operate on -- certain privileges as a legal entity and authority of the State.

Now one of our senators attempted to repeal that act, and I am sorry that he even considered it. But it didn't get out of the Legislature. It is still in effect. And with that dynamic board there, I think we are going to see a lot out of it.

Mr. Yantis, what is the time? Mine is a little slow.

MR. YANTIS: You can stop anywhere. It's 20 minutes to 11. You can stop or go for say 10 minutes.

DR. QUEBEDEAUX: Let's stop now because in 10 minutes I might not be able to stop at that point.

MR. YANTIS: Then, at 11 o'clock, please return.

(A brief recess followed.)

CHAIRMAN STEIN: Let's reconvene.

DR. QUEBEDEAUX: Exhibit 13 is a copy of the Rules and Regulations of the Texas Water Quality Board.

The definition of pollution I referred to is on page 89. That is in the back section where you will find the various acts that the Water Quality Board has jurisdiction under, and at a later date I will talk something about the well injection acts which have always been in this book. But if you will just put this to the side at the moment, we will go on from here.

No. 14 is the statute that governs the Gulf Coast Waste Disposal Authority. Let me state at this point that regardless of what my personal feeling is about this particular one or any other act that has been enacted by the Legislature, I do not have the right to disregard them at will, or my duty to enforce them as they are written. And I keep telling some of my industrial friends that if they don't like the acts and the way that they are written, get them changed, and then I will enforce a new one. But right now this is how we are going.

You will find in Exhibit 15, it is a Water Pollution Act which was passed in 1969. It is a criminal act. It took me something like 10 years to get this one on the books.

We have been using the general nuisance statute back in the middle fifties, and then we got some adverse court decisions that stated you could not sue a corporation in the State of Texas as a corporation.

So after we started, Mr. Acker carried the first one, and I believe it was in 1959, and this is what came out some 10 years later.

We have used it as you will see later. And while there is one big area that it doesn't address itself to, which is a municipal corporation, maybe somewhere down the line the definition of persons which you find here can be enlarged to include the municipal corporations too, so that you could use it in that connection.

Article 16 is included as a sort of summary of various court decisions in the field of nuisance, and it came from the ALR 2d Digest. And as far as common law nuisances are concerned, you might say that that is the thing I am most interested in.

Next is a paper. This is No. 17. I wrote this on common law nuisance. If I were to write it today, I would probably change the phraseology. But I doubt that I would change the references -- they are still good. They come from the Supreme Court, as well as those statutes that we have in this State, and the case decisions that we have had, and I have got file drawers full of them. So common law nuisance is a valuable tool regardless of whether you get labeled as a "nuisance man" or not.

Next is Exhibit 18 and is a summary. The last 2 pages are an outline. The first semester in law school we are in tort. The Dean of the School got down to "nuisance," and there was, oh, say, a half a dozen pages in the book of some 700, and he asked me to hold the class on "nuisance." So that is the outline I gave them.

On the front you will find some case decisions. It is interesting to know that the bottom one, which is the Columbian Carbon vs. Tholen, is a Harris County carbon-black plant case and that decision is beautiful. In essence, it says that even though the carbon-black plant is using control equipment, they still do not have the right to allow carbon to fall on their neighbor's property and interfere with the growth of his vegetation, as well as not to interfere with the enjoyment of his life and his property.

That is the same theory that the Air Act is written under now, as well as this Water Act.

It is probably a landmark case that we had in this case, which I will be eternally grateful for, and this is the Landers vs. East Texas Salt Water Disposal Company.

This was decided back in 1952. Prior to that time, we had a decision under the Robishaw case that said in order for you to sustain your action in court, you had to prove what percentage of damage came from which plant. Obviously, that is an impossibility in most instances unless you just have one.

But this specifically overruled that prior decision, and now you have joint and several liability. You can take them all to task in the same suit or just pick out the most solvent and go after him.

In turn, if he wishes contribution from the others that might be contributing to the situation in a second suit, he has to get that, and the man that has the damage isn't involved at all.

But this one, as far as this State is concerned, is one of the most far-reaching.

Another one that I quoted to you before is No. 20. That is the case of Harris County vs. Ideal Cement, U. S. District Court, Southern District of Texas, Houston Division.

That was the reason that I gave you for claiming a right to object to some of the presentations that were anticipated to be given to Armco Steel, because in this decision the judge points out that the State is -- when you say "State," that just doesn't mean the State organization; that means also the county organization or any other enforcement officer.

Now at this point I would like to without any further comment -- I understand that when Armco gave their presentation, that you, Mr. Stein, tried to find me to see if I had objections. I had considered or assumed that my objection was a running one, that you had overruled me. So I had to get some of this material together and had left.

But I would like to just, without comment further -- and I will try to get it out of my briefcase in just a moment -- place into the record our amended pleadings in the water case that we have involving Armco.

Whether it is appended or whether it is actually in the record ---

CHAIRMAN STEIN: We will take that as an exhibit.

[The above-mentioned amended pleadings in the Armco case, marked as Exhibits, are on file at HQ, EPA, Washington, D. C. and Region VI, Houston, Texas.]

DR. QUEBEDEAUX: But I would like to commit that with no further comment.

I don't think that either Mr. Yantis or I or anybody that is a party -- he and you have your own suit coming up Monday -- should be talking about that particular incident under any circumstances. Anyway, that is the County of Harris vs. Ideal Cement Company.

Now these next 3 I believe are the information which, in my opinion, Mr. Gallagher should have had. That is 22, 23 and 25. And I put these out yearly and the Water Board has copies except for Exhibit 25. So they were available, and that would have filled in the holes that I have complained of in his report, and given you a little bit better data as far as municipal sewage goes.

It shows a deplorable situation, and it has been for 18 years.

Now maybe I ought to make this comment at this time. I heard Mr. Whittington state that as of the date that he spoke -- I have forgotten whether it was Tuesday -- that the city of Houston, by noon that day, would be treating part of the discharge from Northside Sewage Treatment Plant. Well, my comment is, "Good." I think if nothing else comes out of this conference, you have at least got that one behind you.

For 18 years, I have been given the answer, "Well, the city of Houston cannot purchase chlorine. It is too expensive for us to chlorinate that big a volume." But under the force of this hearing, they have suddenly decided they can and they should. But that is something that I think is of real value that we can see right now.

And I would suggest, sir, that maybe 2 months from now you might want to have a continuation of this hearing with the subject at that time to determine whether or not the city of Houston is in the business of treating sewage or making fertilizer. (Laughter.)

If you will go to their big plant, you will not see any primary sediment. They have the tanks there, but they are the Sims Bayou and the Northside. They are empty. The reason I have been given is that if we use primary settling, the material would be in such big lumps that it would not form a proper blanket on our drum filters in the fertilizer plant.

So my comment and question to them in every report that I have made since the first one, which was covered in 1954, is, "What are you in the business of doing? Are you to treat sewage or to make fertilizer?" And it is still a valid query. I still got no answer.

Now on No. 24, it is a resumé of information that I got together in December of 1969, and at that time if I remember our budget was somewhere around $80,000 to $85,000.

Of course, my health officer took exception to it. At that time I was in the Health Department. It was on the basis that these statistics were improper. But when you are just adding and subtracting numbers from official records, I don't know how you can have bad statistics.

And whether we like it or not, some of my commissioners took exception to it.

The fact that you come out with an expenditure for Harris County on the last page of 7 percent per capita is a sad story.

Let me go back, and instead of that $80,000 -- that was the previous year. The amount of money that we had -- local money at that time -- was $120,000 which I show in this report. The $80,000 was the previous year. From this $120,000, we have gone up to $260,000 the next year and currently it is $421,000.

And while there are those that would say that I am wrong in disliking Federal funds, I still think I am right in several instances. I think that the local people did the damage to their environment and they should be expected to clean it up just like a plant. And just the fact that we have got a grab bag up there with the Federal green stuff, I don't think it is sufficient. And I know I have observed other areas where you would take a grant from under the Water Act or the Air Act, and you sell your integrity. I like to be able to do like I am today and be my own boss and stand on my feet and say what I think without having pressures brought on me because of whether or not my grants will be cut off. I am probably the only one in the country that is supported entirely by local money, and I hope it stays that way.

With the thinking that I see in the Commissioners Court -- while I don't always agree with it -- they are the ones that have the authority and the right to make the decision.

Their thinking, the way I understand it, is that we on the local level will put in local funds to correct it.

It might not be in a crash program. I think those are always dangerous. But I think we have made a lot of progress.

Exhibit 26 will show you the efforts that were done up until 1970 and the cases.

It is a very, very sad situation when you have one man with a garbage dump, and you have something like 27 actions filed against him, and all you can win and collect is a penalty of something like $475. His attorney did a real good job.

But they have a little technique that, until the district attorney realizes what is happening, when I go in and file a case or say 4 or 5, well, they will keep postponing until there are 5 or 6 on the docket the same afteroon. And at that point they will come in with an offer to plead "nolo" on one if they will dismiss the others.

I don't set the penalties. I don't take the jurisdiction on how the case is handled after the information is given to them. But it is sad if you can't take a garbage dump operator and really get some correction.

Now we did under the self action finally get that thing closed. But we had him up for contempt 3 times. Two times it was given to us; the third time we didn't make it. But at least we tried.

But now that particular dump is closed.

In 1970, I think it is the most interesting -- this is Exhibit 27. It is a letter or report that I made to the Commissioners Court at the end of the year concerning the number of criminal actions that we had either completed or initiated during that calendar year, and also the number of civil actions.

There are only 2 out of that that we really lost. One of them was a temporary restraining order, and while I disagree with the judge's decision, he certainly has the -- it is within his discretion to do it. I don't have to like it though. The judge was retired from this area, living in Austin. He came as a special judge and happened to have been the roommate of the chief defense counsel. So draw your own conclusions.

The other one -- that man did a magnificent job protecting his client. I had some people that were used on the stand and, unfortunately, they hadn't had sufficient experience to know when a grave was dug out in front of them. They politely fell into them and that man was a real good adversary, and I liked them.

I think that any industrial plant should have good representation, or anybody that comes in. If I can't sustain the case with the evidence we have, I shouldn't be in the courthouse. But I am always ready for an abatement program to correct, and that is what I am looking for ultimately.

I learned a lot out of that case, and we filed 3 since then on the criminal side on the same company, and they all pled "nolo" with a $500 penalty on each.

So apparently, the attorney believed me when I told him he would be looking at a different kind of witness this time; he wouldn't be able to get by with those graveside diggings. But they just pled, oh, within the last month, I believe.

Exhibit 28 is an evaluation of all the activities of our agency.

The thing I want to specifically point out to you -- and that is the number of laboratory samples. Here it is. Something like 2,800 total for the year. Realize that is done by 3 people at that time.

The average now in one of the other exhibits

-- you will find a report which was for last month and has just gone to the court, and we are still in the area of about 1,000 samples per man per month. And I think that is an awfully good record, and I don't know of any laboratory that will match that.

I don't believe that it is necessary that you have a large amount of money, going into millions, to really get the job done. All you need is some dedicated people, and we do have quite an expensive lab. It has grown in the last 2 years. We have a gas chromatograph on order. We have a spectometer on order. Lab space is being doubled this year. We already have the UV and the Atomic Absorption Unit, and that is what works us to death. The man that runs that, in a half hour can run the samples that it takes 1 or 2 of the other personnel a day or a day-and-a-half to prepare for him.

So I need some personnel. That is my handicap at the moment. And I think I will get them when the size of the lab is expanded.

No. 29 is the latest report which was presented to the Commissioners Court yesterday covering the month of May. You will note that the number of lab samples is about 3,700, and that is about 4 people. And that does not include in that total extra studies which one of the courts asked us to do in 2 of the cases which now are under injunctive order.

That is in the fourth section of No. 5, and I think my people have the technology and have the training, as well as they know what to do with themselves on the stand, and you can't beat it.

The next one is No. 30A, the report I wrote about the public hearing which was held in Clear Lake City. I still think it is valid. I still do not think that the diversion of the waste there has been proved to be necessary if we go in and apply the standards which we already have and enforce it.

My hand in connection with a water district or municipality is tied. Because our county attorney has the opinion -- and it is well within his discretion to do it; I don't handle the cases; I get the evidence for him -- his opinion is it is inappropriate for one governmental agency at the local level to sue another. Now whether that is right or wrong or indifferent, why that is what I have to work with.

Now that doesn't mean to say that the Water Quality Board is prohibited. Their act allows them to do it too. But more often than not what we see is a presumed Show Cause hearing, and to the board's staff that doesn't mean what we do in the legal sense. We usually think of it as a Show Cause hearing. That is the last chance you get, brother, before we hit the courthouse. But this is just to more or less come out and have some airing of opinions and some agreements made at a late conference, and that is all it is.

I remember one in connection with South Houston. I had caught them dumping raw sewage into Berry Gully. A Show Cause hearing was called. Except for myself there was no mention made of that discharge. The whole discussion was on their new treatment plant. That isn't a Show Cause hearing.

But the information on these sewage treatment plants we pick up routinely. That is part of our job and we do it.

Now we have gotten down to Exhibit 31 and this is dealing with injection wells. Well, I didn't have the signed petitions in this instance, but I did give you a copy of what was sent up to the Water

Quality Board.

Now remember, sir, that under the Water Quality Act, the Water Quality Board is not required to do anything except take this petition or resolution from my county government, and take it from my hand to theirs.

The Air Act reads different. The Air Act says specifically that "maximum consideration," whatever that means, should be given to it, but the Water Act doesn't. It stops. It says, "Only that Water Quality Board" -- "that local jurisdiction may make recommendations to the Water Quality Board." And that is all. So there are some 3 different petitions in this Exhibit 31.

Now we get down to Exhibit 32, and this is part of what I alluded to before about the lack of attention to filing with the Secretary of State, which is required by one of the exhibits that I referred to up ahead. That is Article 6252-13 -- I am sorry -- change the list of exhibits. No. 11 to 13 instead of 12A. 12A is on the top of it, but 13 is the one that is in question.

You will note that this particular order was passed by the board the second day of October 1970. It was filed with the Secretary of State February 24, and it could not be effective under that act until March 26, I believe it is.

But in the meantime, you have had quite a number of industrial waste disposal injection well orders issued, which are newly voided until the board sees fit to go back and reissue them.

Now then on Exhibit 33, it is a letter which I presented to the Harris County Commissioners delegation -- Harris County delegation for the Legislature. And there are some 16 permits which had been issued for injection wells. And if you look at the second and third pages, I think you can realize some of my concern about putting materials of this type in the ground. Only 5 of these, in all fairness to the industries that are listed -- only 5 of them are in operation.

Now you will get that on the last page of this exhibit. We called all 16, or all the plants involved, to ask about the statute of their injection wells, and found that only 5 of them were actually in operation.

We found 1 plant -- we asked at that time also if we would be allowed to come in and sample. One plant said, "No. You have to give us 24 hours." When I found that letter in the office, I wrote a letter to the management and pointed out to him that we had the right of entry, although the injection well act, itself, which is in this book, Exhibit 13, does not mention anything about right of entry. But it does give jurisdiction -- this is on page 117 -- jurisdiction of the Water Quality Board and the Railroad Commission.

But there is nothing in that injection well act that organizes the Water Quality Board. So then we have to go back to the Water Quality Act which organized it and under that we do have the right of entry.

I pointed that out to him, pointed out the Ideal Cement case to him, and the next morning -- well, that night one of the TV channels carried it as a news item, about the refusal -- and the next morning, bright and early, we had a call from the management that said, "Come anytime." By the time I got to the office at noon, their chief counsel, who happens to be Haden Head, was burning up the wires trying to get hold of me. And he wanted to know -- his first statement was, "Walter, what are you doing to my good friends up there?" I asked him, "Haden, we called your plant as well as everyone else. Yours is the only one that refused. You certianly know we have right of entry. Now what did you expect me to do?"

There was a little silence. Then after that Haden said, "Well, Walter, you know that we want to cooperate with every agency."

I said, "I know it, but I wish you would inform your people."

I told him that we had gotten a call from them, and they had changed the signals. So that we don't have that barrier. But I told Mr. Head also that I was really surprised that his management, in addition to giving us verbal refusal, actually put it in a letter and sent it to us. But that is what happened.

But you look at some of these permits. My statement is still proper -- that if they were followed, for instance, the one from Ethyl -- it allows a pH of 0 to 1.5 to go underground. That is 98 percent sulphuric to maybe, oh, 20 percent sulphuric.

It specifies in it you have got to have stainless steel tubing down the well. But what happens once it leaves that tubing? Nobody, no geologist --- And Mr. Vanderhoof, if you will remember out at the airport the Water Development Board geologist admitted he could not tell where there was a weak spot in that cap rock or crevice.

Now they are the ones that made the decision as to whether these deep wells should be done in the first place. And then the Water Quality Board went on that decision.

No geologist can tell you where that is going to be. I have been contacted by several consultant geologists since this came to a head, and they agree that nobody can do it. One of them said, Nobody can really say in boring through that cap rock in the first spot 30 feet or so down there that you haven't ruptured it."

He did say that there is one way to tell whether or not the cement around the pipe is tight and that will prevent leaks from coming up the side of the casing. He said you need a full wave test on it. You are going to have to use a trace element to check it.

But it can be done.

But that only tells you around the well site and the cement that is around that casing. But it gives you no evidence whatsoever.

Mr. Tyler, at that meeting, did agree with me that there possibly should be some mechanical device that would prevent these indicated pressures from being exceeded.

It only takes -- say you are permitted a pressure, wellhead pressure, of 1,500 pounds. Say something goes wrong, and for a little while you have 3,000 or 4,000. You don't know what damage has been done until somewhat later, some few years later, and you might find it in the drinking water sand. That is too late.

Just to work on a rule of thumb, I believe it's a half a pound per foot depth, leaves too much in error.

Now let me hasten to state that injection wells, in some instances, have been official uses. But here I am talking about toxic chemicals and chemicals that can react with the rock that is supposed to hold materials down and keep them down at that low level.

You will find on the second page here one of these wells is 800 to 950 feet deep. Most of the others are above 5,000.

That particular one is, while it is within the water sands, it is a salt disposal well and really shouldn't be there, because we have the need of all the salt-freshwater sand that we have available. And that one, if you read that permit, was issued by the Water Department Board before the Water Quality Board took over. And those permits speak to just how the casing is; there is no real safety devices in it. And, gentlemen, I don't think we can play with our water system in this manner. I think there are too many unknowns.

Of course, you will find experts that can be hired that will take opposite views, and I have seen some of them. We have heard some of them here.

But to me it is a dangerous situation. I don't propose to be a qualified geologist, but I do propose to know what is going to happen when these chemicals get down there and get in contact with limestone.

There is no point in putting stainless steel tubing down there if we can't protect it after it leaves it. And the fact you have to leave stainless steel tubing indicates that your limestone is going to be hurt.

Now some of my attorney friends that work with me in the county attorney's office and attorney general's office always feel that unless we can indicate some method of correction that our cases aren't as strong as they should be.

This Exhibit 34 has 2 sheets which indicate the effect on raw sewage by the addition of various amounts of pickle liquor.

Gentlemen, it is astounding what happens to it. You knock your phosphate down. You knock your BOD and your COD down and that is on the first sheet. Those are the things that presumably are the ones that give us the most trouble when they get released.

Now I submit that pretreatment -- and if you look at the books on sewage treatment, you usually find a sentence there, and it is usually not more than a sentence, to the effect that chemical pretreatment is of use. That is about as far as they go into it.

But if you use something of this nature, I don't care whether you use pickle liquor -- of course, that is a waste material that a lot of fence companies would be glad to get rid of because then they don't have to neutralize it. But we have a lot of it here.

In Middletown, Ohio, they are putting it underground. But take this material out as a solid, and then your sewage treatment plants, in essence, are only treating the soluble organics. You have got all the solids out. Your capacity for that plant will be materially raised. No solids. If you follow the leadership of South Houston -- they take those solids and put them into the same incinerator that they use to burn their garbage.

Now we have heard a lot about solid waste disposal. It is only a matter of temperature in the incinerator. There are some on the market that you can put plastics and can put rubber tires and can put anything you want to in it -- you don't get any emission out the top. It doesn't take much of an incinerator to burn sewage sludge.

What you are getting away from is the drying bed. Those are expensive to build, expensive to maintain, and also that is the point where you have your odor nuisance when they draw the sludge out to let it dry. You can take this primary sludge, and also the secondary sludge and run it through an incinerator with no pollution, either in the water or in the air. But just like all things you have got to operate it properly. Most of these incinerators we see around town, they couldn't be operated properly unless you burn maybe a pound an hour and be real careful how you add that. But there are some on the market -- Galena Park has put some in of the higher temperature kind. South Houston has. And I think in the year or so to come, we will see more and more of those high temperature incinerators being used.

The day of the iron box, I think, should have been gone years ago, but there are companies around here that make them. They sell them for $10,000 or more, depending upon what the traffic will bear, and they get away with it for awhile.

Now Exhibit 33. I have added that for some additional reference for your information. You will notice the first 3 are cases that have been decided on the Federal -- well, one of them in the Supreme Court of Illinois.

The other two are Federal Cases which more or less turned around the thinking of the 1899 law, and they are real pertinent.

Now the No. 5 there -- that is the 32 ALR 3d, to 15 -- that is about 100 pages on. That discusses the constitutionality of water statutes.

There is another one, a companion one, on the air pollution field. But that isn't one that I think is concerned here.

Now No. 6. This is a little gem. It is your own book. It is a report of the Administrator of EPA. It is document 92-6. It is written March 1971. If you will look into there, you will find -- and they have taken several of the industries and gone through them and ended up with a paragraph about the economic costs of the control equipment -- and there is one that I looked at I believe last night in connection with rubber tires, to put control equipment on the manufacturer of rubber tires and tubes, and you would have to pay additional prices when you purchased it of a half a cent.

Gentlemen, that is silly for these industries to stand up here and talk to you like they have and filibuster if you want to take their word for that kind of an increment.

If you figure out and I have figured it -- about a year ago, the paper mill -- take the total tonnage of material from that mill, and according to their own figures which I have no reason to disbelieve, they had spent for 3 years something like $3.5 million. Well, you divide that down to the increment of cost that they would have to add to each ton of paper and you come out to a silly figure of 15 cents.

Now obviously, by the time it gets down to how much increment there is on a tablet, I will probably agree with you that the increment you will notice there might be 10 cents, but that is still cheap.

But 15 cents increment for that $3.5 million per ton of paper on their production, there is no reason, or no valid reason, to say it is too expensive.

Now the last one, Exhibit 36, is another little gem. We got a call last night from a gentleman in Clear Lake City. He said, and I am quoting, "Pollution has been conspicuously absent in this area for the last few days while meetings were being held by pollution control agencies." He feels that the obvious reduction of industrial pollutants could be a direct result of this meeting and thought we might like to receive a call of commendation rather than one of complaint for a change. (Laughter.)

I enjoyed getting it. I have seen it happen before, not only here. We had the Air Pollution Control Association meeting in Philadelphia one time, and part of the activities were to go down the river. It was real noticeable that when you came in sight of the big sign, lighted sign, on the banks of the river, why it suddenly turned off until our boat passed, and then it turned back on when we got by and couldn't really read it again. And coming back up the river the same thing. I don't think it is happenstance. You don't have that many power failures in every plant just at the instant that the control officials were passing their plant. That is a little too much to assume. But I have seen it happen there.

We had some air pollution people here, well, the President's Advisory Council. I think one time they took a trip down the channel. It was real clean if you can clean up the channel water. But as far as the air you didn't have much pollution.

I have ridden on some of these, when you have these meetings, down the channel. It just seems like some of the -- it seems like you have production stopped. I know it is not completely stopped, but it sure cuts down.

Now getting back to some of the material -- and I use that advisedly -- that we have had given to us.

I think Mr. Yantis rushed to correct Mr. Eckhardt on his statement that originally I believe there were just 3 State officials. Mr. Eckhardt was right if I remember correctly. Then when the Railroad Commission -- when there was a case decision that said the Railroad Commission had control of oil and gas, they were placed in front instead of the petroleum members of the board, and so then you had 4.

Mr. Whittington still apparently doesn't know that there was a pollution control act prior to 1967. And I have heard some others of the staff point back to that with the implication that they are a new agency, and we shouldn't expect much from them. Gentlemen, we have had them 10 years. I can't see that we are much further along except in a bigger mess. Mr. Yantis' statement points out that monthly the Texas Water Quality Board gathers for 2 days.

Well, I got 1-day's notice when the question of reasonable planning came up. And I went up there, and Mr. Fulcher took it off the agenda because I pointed out the lack of statutory notice. The next month I went up again and while it was on the agenda, it was pulled off. And the second time it was pulled off I got tired of going. Then apparently it was passed. But you can't go up there every time.

I am in a little different position from the John Q. Citizen. And just at the whim of the staff, when they have these things pulled off the agenda, and you really don't know the agenda until you get there, those that have to lose a day of work, it is a situation that is unforgivable, particularly when they can't really have notice of it unless it is by word of mouth. And it is not according to the statutory requirements that are placed in the statute.

Mr. Yantis stated that there was no member of county government at the local level when the standards were promulgated at a hearing in Houston. Well, he forgot to remember (and he was the Assistant Director at the time) I spent days and days with Mr. Shilling. I don't know whether he is still on your staff there in Ada now or not, but he was at the time. He wrote the abominable booklet or plan that was actually put into force on the Houston Ship Channel where you cut out a section on a flowing stream. Although the flow is not complete, it is just on the surface. And you say, "Anything can go here -- and up above and below," and, "Why, it is going to be a recreational or better quality of water." Well, you can't keep sticking the discharges from an industrial plant on top of each other and expect them to stay there.

Mr. Shilling at one time told me, "Well, we are going to put some instruments down there at the San Jacinto River at the beginning of the buffer zone, and then, when we see some indication that pollution is going past the San Jacinto River where it comes into Buffalo Bayou, then we will start looking upstream.

Gentlemen, that is too late. By the time those instruments are affected, your water in that bay area is already polluted. You can't get upstream fast enough to find out who did it. And with that kind of a dilution, you are not going to be able to detect a lot of these elements. We do have better testing procedures than we did at that time.

I was able to stop the board from adopting it in toto. They did adopt the plan in essence. My whole purpose was if they adopted it in toto, then you have got a Bible here that nobody can refute. And that is the same with some of your publications, Mr. Vanderhoof -- the fact that it bears your departmental name gives to it a credence to the lay people that this is the last word, and some of them are horrible.

This one isn't -- and again with due respect to Mr. Gallagher -- he had a tough assignment, and I have been in his shoes -- this one is not a good report. It has got too many words that read "unknown" in it. How you can take that many unknowns and form a conclusion, I can't understand. But it bears your stamp and somebody picks it up, without knowing anything about the chemistry or the analysis, and he will accept it at face value.

I had an argument with Mr. Stern who was with the early NAPCA Agency one day, and they kept bringing up papers and giving them on particulate studies in the air. I brought up the same question to him. He said, "Well, Walter, back 10 years ago, we stated that the parameters that are used, that there are limits to their applicability." I said, "Mr. Stern, anybody that comes up now and picks it up is not going to know that 10 years back you said that there is a limitation to this report. You say so or at least refer to it everytime you write a paper." Just the fact you have got an official stamp on it doesn't make it true.

Now I don't know whether or not -- well, I think I have already talked about the Gulf Coast Waste Disposal Authority. That is enough. I had this marked here (indicating). Whether or not it was imposed by the Federal Government, I have no way of knowing.

There is no communciation that I would have privy to. But I have already stated that, and I can't feel sorry for the Water Board about their appropriation year ending 1968 of $1.1 million to which was added $2 million for regional planning.

I have to agree with Mr. Moore, I believe it was -- no, Professor Busch -- that the Galveston Bay Study -- I was in it and doing some of the testing with it originally. On the test results, there is a lot of question about it. I think it is a boondoggle. I think we could have spent our money a lot better if we had just gone to the outfalls and started correcting there.

Now at the time the first act was passed in 1961, I prepared a new act. I was a little naive in dealing with the Legislature. I had gone under the impression that the representatives wanted to write their own act. Well suddenly on Friday, I find out from one of the subcommittee members that that wasn't so. He said, "What we would like to do is have somebody give us a prepared statute or bill that we can pick up and run with." So I had him one the next morning -- the next Monday.

That bill didn't involve any permits. There is no need to have a permit system. Just set your cotton-pickin' mind, set a point in time and say, "Beyond that time, we are going to have the effluents from all the plants on this channel comply with the definition of pollution in our statute."

And from that point on, let's see us start enforcing the act. Don't pick and choose what you want to use in the act.

Now I think it is about 12:00, isn't it, Mr. Yantis?

MR. YANTIS: Very slightly after. But you go ahead if you wish.

DR. QUEBEDEAUX: Well, I am sorry, sir. I have about maybe 15 minutes -- I am sorry. I get wound up sometimes. (Laughter.)

MR. YANTIS: Well, if you would like ---

DR. QUEBEDEAUX: I have 30 minutes or more.

MR. YANTIS: Does it bother your train of thought if we adjourn, and then let you be the speaker when we start back?

CHAIRMAN STEIN: Well, I guess we could do that. If it is 30 minutes, maybe we should do it.

MR. YANTIS: Well, all I was concerned with was that if he had 10 more minutes we could go on. But if the 10 minutes is back to 30 minutes, we will stop anyhow.

DR. QUEBEDEAUX: I think it will be at least that, sir.

MR. YANTIS: For the sake of the reporter, let's adjourn now. And if the Chair wishes, we will come back at whatever time you announce.

CHAIRMAN STEIN: How about coming back at 1:30?

(Whereupon, the proceedings recessed until 1:30.)

CHAIRMAN STEIN: Let's reconvene. Would you continue, please?

DR. QUEBEDEAUX: Mr. Chairman, let me correct something right quick. This is not intended as a filibuster. I think some of the people might get the idea that I enjoy standing up here and talking this long. I would prefer not to. But I think the information is something that has to be brought to your attention, and then we can go from there.

There is a map that is Exhibit 21. It is a big map of the Houston or the Harris County area, and on it it has subdivision names. I want to call your attention to it. I think the reporter has it. North of the city of Houston city limits is a mass of new water districts.

As you know, in this State, you can get water districts formed several different ways -- whether it is by a special act, or by permission from the WCID, or whether you want the freshwater supply district.

More often than not, the WCID districts are formed by an attorney, and taken up to the State office and gotten approved, and quite often, they are placed into operation with taxing powers and bond indebtedness running into millions of dollars with 3 to 5 to 8 votes, which is unthinkable. But that's the way the statute is.

That map is what I wanted to show.

Some 5 or 6 years ago, I appeared on two occasions before the Houston City Council and pointed out to them that if they did not take extraterritorial jurisdiction in that area -- this is prior to the airport coming into operation -- they would be faced with the large number of water districts that they were faced with on the west side of the city of Houston proper -- where they had to go in and attempt to buy them out at large sums of money -- many times what it cost to put them in -- and couldn't get any. But that map was placed as an exhibit to illustrate the necessity for somebody -- I don't care whether it is the city or comes from the State level or from the Federal -- of forcing these subdividers to go into a common complex main.

[The foregoing exhibits, marked Exhibits, are on file at HQ, EPA, Washington, D. C., and at Region VI, Dallas, Texas.]

Dr. W. Quebedeaux, Jr.

Now the city of Houston -- there were 5 water districts at the time -- the city of Houston tried to get some of the subdividers to combine. You talk to the Public Works, and they said they had no authority outside the actual city limits. The Planning Commission said they did.

I was trying to ask the City Council if they didn't have proper jurisdiction to seek it from the Legislature so they could control it. Now I think they have assumed that they do have jurisdiction but haven't done much to control it.

About 2 months ago at the Water Board hearing, 3 or 4 of these new subdivisions came up there pleading that they had their funds committed, and they couldn't wait for time to work out a plan to get in the common sewer plan. The board did pass it and did allow them to go separate.

Now I think somewhere down this road there has to be a halt. I wish it had been then, but it wasn't.

Anyway getting back to the -- let's see -- I believe it was the Federal presentation, I wish to chide Mr. Vanderhoof just briefly. It is a usual practice, when you put on a witness to know what he is going to say. And the fact that the Food and Drug people didn't support your report, I think is something that should have been known prior to him saying it, because the fact that you had tried to put words in his mouth, using the words "potential health hazard," didn't cure the damage that had already been done. They are your experts. You should know how they are going to testify. If that is the worst that I can say about you, sir, well, that is not much.

MR. VANDERHOOF: Thank you.

DR. QUEBEDEAUX: Then we get down to channel flushing. Well, that doesn't happen. You have got a 40-foot channel, 40-foot of depth. Usually in dry weather flow, you have maybe a foot or 1-1/2-foot flow on top. The rest of it stays down.

It is anaerobic, as some of the other witnesses state, and the Corps comes up and dredges. They will take out all of that fecal matter that is settled there. And then when they put it into a holding pond, that is when we really have trouble. There are whole subdivisions where the houses turn black overnight.

Now I have on occasions gotten the Corps of Engineers -- and I think it is in their contract now that they require the contractor to apply odor-control chemicals when necessary. We run into this situation at the mouth of Sims Bayou and the mouth of Brays Bayou. We don't run into it anywhere else.

So using the permitted values of suspended solids and calculating the pounds per day that is actually put into the channel and assuming it all gets into Galveston Bay is not all quite factual information, because it just stays there in the bottom of the channel until the Corps does move it.

Now that is not to say it should be there in the first place. There is only one time I know of that the majority of the enforcement agencies that have some degree of duty over the Houston Ship Channel have ever gotten together. Colonel Lambert was Director of the Port at that time. Back in the mid-fifties, out of the 19 agencies at that time 17 of them were present.

Now I think there is something like 23 agencies that have some kind of jurisdiction over the channel. And if you are going to count the individual police departments or the individual cities, you will get many more.

But that is one time that we did have them together. And while the majority of that material does come from the city of Houston, and it continues to come from it, that is one area that all of us can work for and get all of these agencies that have this kind of jurisdiction, and try to work out this problem so that it can be stopped.

We don't have that channel flushing even on a big rain. But I can guarantee you if you give me about 1/10 of an inch of rainfall on the southwest or west part of town, I can guarantee you 2 days later I have got a fish kill in Burnett Bay.

Even with that small amount of rainfall, you will have maybe 5 to 8, 10 feet possibly of the top channel, most of it highly polluted, that gets flushed out at that time. But it never reaches down to the bottom.

Now there was quite a bit of testimony, or rather it was mentioned in passing, that the only thing that H. L. & P. would have coming out is water blowdown under some of the plants. I submit boiler blowdown might be more detrimental than some of the other things we are talking about.

You usually expect a pH of about 11, and I thought one of these exhibits I had was to the effect that -- and we ran tests in the lab -- that any pH that is outside the range of 5.5 to 8.5, or possibly 9, is damaging to marine life. And that is one of the conflicts that I have continually had with the Water Board of allowing pH values to range up to 10 and 11. And even though it is on the grab sample side, there is no way of knowing how long it has been existing before the enforcement officer gets there to get that grab sample. It can go for half a day and ruin the whole watershed.

These values for pH should be within a range that will protect the marine life, because unless you have that complete biota in that stream, you can't expect Mother Nature to help you recover. And that is what we need.

Now Mr. Yantis wasn't in -- well, in fact, the Water Quality Board or Water Pollution Board wasn't even in existence in the middle fifties.

I was able by the end of 1955, to stop

most of the leakage from the barge traffic and the ships and get the plant outfalls to where the marine life would live in their outfalls.

Two years later, we had marine life from about 1956 on that, up and down that channel, and Mr. Eckhardt referred to it, Mr. Yantis. And it was in another division at that time, and it did happen. And there are those that, if you wish to go further into it, that I would say or suggest that the Captain of the Port Commission boat that used to take us on our sampling runs -- he can always testify to the existence of the marine life at those points. It is only about a mile from the place -- the area -- that didn't have it.

Now those results I gave you on sewage treatment plant results -- let me point out -- those results are samples of only that portion that passes through the sewage treatment plant.

The city of Houston, unfortunately, has a vast number of what they call automatic overflows.

For instance, Sims Bayou has been enlarged a little bit now, but at one time they had about a 36-inch pipe coming from a lift station going into the plant. But going into that lift station you had a 48, 42, 36 and another 42. So, obviously, that 36-inch pipe couldn't carry all that flow. So it overflowed by automatic overflow into Plumb Creek.

On the basis of that, one of the district courts took away the north portion -- the north half of Milby Park -- which had been given to the city for its use as a parkland for the citizens, and gave it back to the foundation, on the basis that in that grant it reverted unless it was kept in a manner that was sanitary, and the people could use it as a safe playground.

It just so happened that that particular area was the area that the new Highway 225 came across. So when the State paid for that land, they paid the foundation not the city of Houston.

But I have been connected with about 4 different cases involving poor sewage and automatic discharge of raw sewage, and the city has lost in every instance. There is no need that I can see that the city should be allowed to continue these overflows. If you want to see one right close, go around to the foot of Milam Street.

Before the Sheraton Hotel went into operation, along with the -- it is the Hotel Sonesta now -- and the Humble Building and these big buildings here in town, that thing was already constantly flowing over.

We just have the level. It is greater than that now. You have some bigger buildings that have gone into operation, but you have those all over town and, those results I gave you do not in any way reflect that discharge.

You should remember also that in downtown sections you have composite sewers. You have the same pipe carrying rainwater and carrying sewage. We have a little rain downtown and pretty soon you will see the streets back up with an inch or so of water. And then you will see some bubbles come out of the manholes, and it will be kind of white, in fact.

And then the weaker sex takes off their shoes and paddles across and they are running through just what you think they are. It is raw sewage and toilet paper that is backed up until it has had time to get out through this actual overflow. For a long time there was no cross connection, but that has now been built by the city, which does relieve it a little bit. But these composite sewers or combination sewers are real bad.

Something from the Federal presentation was mentioned about Richardson, Texas. Now we had a situation here that I objected to where it took the effluent from a sewage treatment plant and put it into a lake on a golf course, and then from there watered the greens.

My objection was that it would have some suspended solids of sewage left, and then the people using the golf course would be -- the children would be playing in decomposing sewage eventually in that lake.

Now my question is, what about the sludge that might be collected on the bottom of White Rock Lake? I understand from talking to some of the people here that there is quite a bit of silt and sludge on that lake, and that swimming has been prohibited for sometime. But I think your expert testified that he liked to boat there. I can't see any difference between that and swimming because quite often you fall out of the boat. (Laughter.) It is not good.

Garland, Texas did -- I did some testimony for them once and I don't know whether they still have it or not -- but at that time, they had a nice little sewage plant. But they were taking the plating waste from the airplane company and bypassing the plant and going directly to the streams so they wouldn't ruin their discharge. Well, that was good for the city of Garland, but it sure didn't help the stream.

I don't know how many times I have heard this suggestion on putting aeration into the Ship Channel. It comes up, oh, about every year or so. You hear it once or twice.

I think it is a little unworkable situation. But it does give some people something to talk about -- just like the same thing of carting all of the garbage that the city of Houston has and barging it out to sea.

It is just something that -- the cost of doing so is just too much.

Now whether we like it or not, gentlemen, we do have overlapping jurisdiction.

Now some of the restrictions or requirements that have come from EPA, apparently, want to carve out jurisdictional positions within the county -- say give the city of Houston primary jurisdiction or initial jurisdiction, if you want to call it that, on the exclusion of the county over their particular area.

Under our statutes, you can't do it unless we change our Constitution, and I still have overlapping jurisdiction over the city.

Certainly, if they will take care of some of the air pollution and water pollution problems that I get, I am going to try to use extra hands. But if they don't, I will have to, and I will.

But we can't just wish away these overlapping jurisdictions. They are there.

Now I believe it was last week we had a discussion over at the Houston-Galveston Area Council about grant money. I believe there was a recommendation for EPA about the city passing an ordinance. They called it an enforcement -- an enforceable water pollution ordinance. Well, gentlemen, that is impossible.

No. 1: While the Water Quality Board does allow and does state that a city may pass an ordinance with stricter regulations, that is one of those gimmicks where you give somebody something and take it back in the next chapter.

Well, they gave that to the city in the water act, and in the next section they say, "... must be consistent with the State law and the water board is the principal authority." But further than that the real problem comes in the amount of the fine. The fine under the water act is $50 to $1000.

Also, under the criminal act, it is $50 to $1000, but a city is prohibited from going more than $200. So you have got 2 criminal actions for the same offense with different penalties.

So the city actually can't pass any kind of an ordinance, either on air or on water, to comply with some of the requirements or suggestions from EPA that have been handed down. They are just void on the face.

Now in connection with the air pollution, according to the paper, the Mayor said he would pass the ordinance. Well, he may pass the ordinance, but that certainly doesn't meet your requirements of an enforceable ordinance. It is impossible for him to do that.

And if that is going to be the reason the funds are withheld, then it is just not a valid one. At least, give us something we can do.

Don't put up restrictions where there is no possibility under the statutes in this State -- and I am satisfied that this probably is so in most of the others. Now I haven't checked that out. I did have a suggestion here. I believe it was Mr. Wheat. He was talking about the enforceable laws that we had here that were better than some of the other States.

Well, I recommend that Mr. Wheat, Attorney for the Texas Water Conservation Council, recommend that -- I recommend he consult the B & A Report, which would give him a resumé of all the State laws as well as the Federal, and I think he will get a little better picture.

I don't think we are any better. I think on our air pollution side, we are a lot better than what EPA has in mind. I think primarily the EPA group doesn't really understand what we mean when we are talking about emission control. But we are talking about water here. And certainly I would agree with him on the water side, or disagree with him that we are not in a good position.

Mr. Quarles also has had some things to say. I think that rather than take them one by one I will make the comment that Mr. Quarles is no different from any other new person in an enforcement job like his, or mine -- you usually see that they want to have a conciliatory attitude against the industrial family.

Just because Mr. Quarles had only been there a short time, certainly there is a predecessor to EPA who has been there a long time, and just because you change the name doesn't mean that you have to start from scratch again and start your time way over.

We have been here 18 years. We have seen the bad things occur.

Mr. Yantis and his group and predecessor have been there 10 years. And up until 1969, as far as I know, only one suit has been prosecuted.

How long do you have to wait? Ten years has been too long. If you don't get any action by that time, well, somebody is stalling.

Now I disagree violently with Mr. Oppenheimer's position that pollution, in essence, is a fad that will come and go. I think it is here to stay, and I think the people of Harris County will agree with me. We are going to have some action some way or another.

Now it is really funny that Mr. Whittington should mention the Stauffer plant neutralizing ponds. Those were put in under the pressure that we exerted in 1956 and 1957 in the big civil suit that we prosecuted that time with the 54 defendants. We found that about 2 possibly 3 weeks ago in going back out there, they were out there repairing them. They hadn't been using them. So that is not a good treatment process.

Now the thing that is the strangest thing in Mr. Whittington's presentation, you saw a beautiful plant site for Arco Chemical Company on Sheldon Road. It looks beautiful from there and those pictures were good, but I submit you cannot tell the quality of the water from up in the air. And certainly that plant and the thing that makes it so strange is that the water board just this year chose to file against that plant -- file suit on the basis of 4 BOD results, one of which was in 1968. Three of them were in 1969. And that was all that they had. And by the use of an effective blackjack, they got a "nolo contendere" and $2,000. Now that plant is in a lot better shape than that. I have the results, but nobody wanted them. I suggested to our county attorney that I didn't want to be a party to that type of suit. If I don't have a solid case, I don't want in the courthouse until I get one.

But BOD results of that nature -- their permitted level was 80, and the top limit I think they had was around 120. The test isn't that good, particularly on industrial effluents.

We have heard a lot about BOD results for industrial effluents. Gentlemen, you can't run a valid BOD result on industrial effluents unless you dilute it, and then what you end up with is that you have diluted out the toxic materials, and then you have a big factor to multiply by. And you can't go from one outfall to the other.

And then I believe in your report, you have estimated COD values. There is no means of going from BOD to COD because every outfall is different, depending upon the trace materials in it. Now I know that much by working as an analytical chemist, and a part of my professional experience was with the paper mill.

At that time, we had nine outfalls there, and not a one of them could we correlate on the same line for BOD and COD -- not a single one. It is a familiar occurrence.

You can't pick out one cure and say, "This is what we are going to estimate." You are way out in left field and maybe out of the ballpark.

Mr. Quigley had a statement that I think needs repeating. He is talking about what the Germans did in the Ruhr Valley.

Not too long ago, the engineer that engineered part of that Ruhr Valley cleanup was asked here in Houston if he thought that he could have gotten the same accomplishment that he did back then if it were done today. He said, "Obviously not. I don't have the power of the Kaiser behind me today."

At that time, he did what the Kaiser wanted, and he was the sole thing. But today he thought that he couldn't accomplish what he did back prior to 1917.

Now I have never been able to understand, and I objected to it when Southland Paper was up there with their permits to color from the paper mill, particularly if the outfall is going in an area where you are not interested, or interested primarily, in aesthetic value. Now we hear a lot about activated carbon treatment. It is one of the most expensive types of treatment that I know of. I do know that if it is the colors of a lignin character, lime will handle it. But I submit that where Southland goes in -- this is another strange thing -- a regional application case to put into Carpenter Bayou, through an open ditch where we could have some surveillance on it, but then suddenly it was changed, and at the same time just a standby permit was issued to allow pipe to come down Sheldon Road directly to the channel -- all underground. So, nobody knows what hit that channel from Southland. If you are there at the right time during the night, you might find out really how bad it is. Most of the time during the day, it might be real good. But I find that you don't have that kind of personnel to keep them there the whole time.

Now the next one I have here, I think was Mr. Keck. (Laughter.)

Mr. Keck, I think stated, if I got it right, that the industrial committee of the chamber was formed in 1963. I submit for history information that it was actually formed in 1953 because I was a member of it that year.

And the testimony that Mr. Keck placed before you from the various industries, gentlemen, I don't know how many times I have heard that same song and dance. It is the same thing over and over and over.

Presumably the speeches are written by the man giving it, but I think you, Mr. Stein and Mr. Vanderhoof, and I, and Mr. Yantis all know that before a company man can present a speech of any character like that, the attorneys get hold of it, and the way these attorneys come out with speeches, lots of times they don't bear any resemblance to the true facts. With all due respect to them, they are so afraid of admitting liability.

So that bunch of watered-down material I am just going to pass over with the comment that it is not really worth having sat here 2 days to listen to.

But it does do one thing. It does enforce my belief and those of others too that the Texas Water Quality Board is industry-oriented.

Furthermore, if you look at the things that have been done that I personally know about in connection with the Water Quality Board, if I write up there for a valid permit -- the latest permit on a company that I am going to sue -- I have got the information ready to go to court. And usually the first thing that happens is Mr. Yantis writes a letter to the company sending a copy of my letter before I get an answer back. Then they come up for a conference. I am not a party to it. And then, suddenly, the permit is changed. And I have had about a dozen cases of that nature blown out of court because of the change of signals during the ballgame. Now that is something that I object to strongly.

While there is some reason that most of the files of the Water Quality Board should be public records, inquiry letters and things of that nature I think should not be -- particularly when the inquiry is written with the view that we need that information to complete the requirements for filing the suit, and we don't have it at our hands.

The only place we can get that is from Mr. Yantis' office. And when we are blocked and forced there, there is no other conclusion but what you are industry-oriented. That is something that I hope this thing helps correct.

Now I am going to stop here after my filibuster, if you want to call it that.

Mr. Greene, are you ready?

Now I have gotten this out of my system. It has been needed to be said for a long time. I am glad that both the Federal Agency and the State agency are here to hear it. My plea to you gentlemen is that all enforcement agencies -- that we all work together.

Now it has been the policy for a long time for the Federal Agency to take the position, "We only talk to the State; we can't come down there to

Houston and talk to you." I have heard that from you people there in Dallas. I hope it is different since you are there, but that is what the attitude has been.

But there is no reason why all enforcement agencies can't work together. We have a duty to do it, so that we can fulfill the duties that we have to the general public where we get our payrolls and our salaries from.

No one of us should go off by themselves and try to operate as one man or one team. We need each other to complement. And, gentlemen, when all enforcement agencies -- when they are ready to stand shoulder-to-shoulder together, we will have our arguments, but let's have those back in the back room. As far as the general public is concerned, let's have a solid front and be shoulder-to-shoulder.

We know where we are going, and let's have free flow of information and request back and forth between us, without having the possibility of premature action and injuring some of the prosecutions that might be in the near future, because we can't work as individuals. And I hope that that -- and I feel sure that that -- will be the best thing that can come out of this conference. And I certainly thank you, and I am sorry it took so long, sir.

CHAIRMAN STEIN: Thank you. (Applause.)

Are there any comments or questions.

(No response.)

Before I came here, I wondered for years why Texas had the longest State Constitution of any State. I am beginning to get a clue. (Laughter.)

DR. QUEBEDEAUX. Unfortunately, Mr. Stein, a lot of the legislators rather than change it like to amend it. And lots of times you don't really know where you are. (Laughter.)

MR. YANTIS: You know, it is kind of hard for Walter and I to outwit each other even if we try.

Although we have professional differences on how things ought to be done, we have known each other, let's say: starting in Boy Scout camp back when we were 14 and 15 years old. We have known each other ever since. Sometimes you might say well and favorably; but maybe Walter doesn't always think so. But we are old, old friends and acquaintances and sometimes adversaries, I guess.

The next speaker that Walter called for

is L. A. Greene of the HEP.

Following him, or with him, either one, is Barbara Bunger.

MR. L. A. GREENE, JR.
SECOND VICE PRESIDENT, H.E.P., INC.
HOUSTON, TEXAS

MR. GREENE: Mr. Stein, Mr. Vanderhoof, Mr. Yantis, my name is L. A. Greene, Jr. I am Second Vice-President of HEP, Inc., Help Eliminate Pollution.

I wish to welcome at this time the United States Government and tell you we heard you were coming -- we heard it in 1865 that you were on the way.

In 1899, Congress told us you would be down shortly. At least some of us are glad. I don't think that is uniform throughout the conference, but, some of us certainly are and we wish to welcome you.

I would like to point out I think there is much stronger sentiment and public support among John Q. Citizen than perhaps has been expressed here.

This is the 5th day of the conference. We certainly are grateful for all of you gentlemen's patience in sitting here and listening to all of the testimony and giving everyone that wants to speak an opportunity to be heard.

There is a fear among many people in this part of the State that you will stay; there is another fear that you will not stay. Personally, I fall into the latter group. We hope that you will stay and that we will see more tangible efforts.

It is awfully difficult to follow my good friend Dr. Walter Quebedeaux, but my speech was prepared sometime ago, and I am going to give it.

He did point out one thing that I noted. In dealing with many various State and Federal, as well as local agencies charged with pollution control that you deal with, I have found a rather strange feeling in each agency whether it be either the United States Attorney's Office for the Southern District of Texas, the Environmental Protection Agency, Texas Water Quality Board, the Harris County Commissioners Court, Dr. Quebedeaux or whatever that feeling is that our respective agency is the only one doing anything about pollution. I find that feeling quite strong. Every agency feels that way internally, and I don't think that is necessarily true.

I am disappointed and appalled this conference has started out and been carried on in the same vein.

Gentlemen, that attitude begs the question of effective pollution control and simply furthers more and more delays. Meanwhile, the pipes are wide open. The effluent flows, if it isn't too thick.

It is a very tragic thing to me that a man such as Gordon Fulcher, of whom I have been very critical in the past and will be more critical of in a few moments, should be made to feel so defensive as a result of the Federal actions which have been taken in this case. We have seen too much of that. Think of the morale of the staff.

I am talking about the way it was arranged or handled, or mishandled, if you will. I think there possibly could have been a better way to have started off, and I hope in the future it will be carried on on that basis.

But, to me, the great tragedy is the morale of the Water Quality Board staff below the level of the

Executive Director. I am talking about the guy on the bottom that is out there taking the samples -- I think this has not been real healthy that they feel that undue criticism -- I think the feeling they feel is real.

I am not defending the Texas Water Quality Board, but it seems to me, gentlemen, that there must be a better way for the State and the "Federales" to cooperate. I don't care who cleans up the pollution in this area, and this State, and this country, as long as it gets done with all deliberate speed.

Again, not siding with or defending the Texas Water Quality Board, but we find the Federal track record in the area of water pollution control is not so hot itself. The United States Corps of Engineers has for some 71 or 72 years been ignoring its role in pollution control responsibilities which are charged to that agency by Congress. The United States Department of Justice has not prosecuted too many shore-based facilities under the 1899 Refuse Act, although in the Sourthern District of Texas the U. S. Attorney has handled a large number of cases, most of which dealt with vessels or spills. But very few have dealt with shore-based discharges.

One of the purposes which EPA was designed and implemented to avoid was a mass papermill of red tape and to expedite environmental matters. As yet I haven't seen any results of a real tangible nature.

CHAIRMAN STEIN: I would like to indicate one thing, and I don't mean to interrupt.

MR. GREENE: Certainly.

CHAIRMAN STEIN: Just as a matter of record -- I don't want to speak for the Corps of Engineers or anyone else -- for most of those 70 years you mentioned, the Corps interpreted that 1899 law as applicable to interference with navigation.

It wasn't until the last few years that we all recognized the usefulness of the Refuse Act as a pollution abatement tool. So as to your saying that the Corps -- now this is a sister Agency -- didn't use this, they were carrying out the law for most of those 70 years as the Corps interpreted it.

When the Corps changed the interpretation, they changed it, but I don't --

MR. GREENE: You are referring to the Interlake Steel case?

CHAIRMAN STEIN: No. You are talking about I think the Republic Steel case. But for years, the 1899 Act was not construed by the Corps as it is now to permit it to be applicable to all sorts of degradation of water quality. All it was interpreted as being applicable to were discharges that were impeding navigation. I think the Corps did a good job in doing that.

We didn't create this situation of the law. And as Dr. Quebedeaux has said, we carry out the law as the court and the Congress enunciate it.

And I have been operating in this for many years, and I grew up, and I'm sure Mr. Yantis grew up, with the notion that the 1899 Act was applicable only to impediment to navigation.

It is just in the last few years that we have had this application.

I really don't think the charge can be leveled at the Corps that they didn't apply the Act, in the broad aspect, when the court was not interpreting it that way.

MR. GREENE: Even if you concede that, Mr. Stein, the Corps has not, I submit, enforced it since the courts have taken the interpretation that you speak of; and it is only since the first of this year that they have decided that they are going to issue some regulations and issue permits. And I would also submit, since you brought it up, that those correlations have the effect of repealing the Refuse Act by regulations.

I think they are watered-down. I think they are too soft. I think they are too easy.

CHAIRMAN STEIN: That is a matter of interpretation whether the Corps started this year or otherwise.

MR. GREENE: Let me restate that. In the Southern District of Texas -- because I have a letter from the Corps that says they haven't issued any permits --

CHAIRMAN STEIN: It may be true in the Southern District of Texas. Again, I don't want to speak for the Corps, but I think the record speaks for itself.

Obviously, those court decisions that changed the interpretation of the law were brought about by the Corps, or at the instigation of the Corps, caused by the Department of Justice, but they were a long time before last year.

Just look at the record.

MR. GREENE: Fine.

Well, last year here in Houston a private organization filed suit against more defendants than had been filed by the Government in this area of which I have been able to gain knowledge. This group was the first to sue Armco Steel. Since then the States and the Federals have seen fit to bring suit against this company. Gentlemen, there are others which I submit need to be sued for past violations of Federal law.

I was very disappointed in Mr. Quarles' remark -- I believe on the opening day -- that they would prefer to avoid the courthouse route and the attending embarrassing publicity that would go with it. I'm frankly dismayed that any Federal official would take such an attitude with regard to violations of Federal law. We do not think that the job of cleaning and salvaging Galveston Bay can be done by continued studies, delays, negotiations. Rather immediate enforcement action is, in our opinion, called for and will be required to accomplish the task at hand. And I submit that it is absolutely indispensable that we have far better cooperation from the Federal side (the EPA) with the State, and that we have far better cooperation from the Texas Water Quality Board with the EPA. I am not, nor is my organization, in a position to judge where the lack of cooperation in the past has been. But we certainly submit that we should have, and that there should be, far better cooperation between the Federal Government and the State government and the County government and the city and other municipalities in this area than we have experienced in the past. If the problem is such that we cannot get the cooperation from the various governments involved, then I see no alternative but for the Federal Government to move forward, as much as I dislike that role. I would prefer that the State do it. I would prefer that the county do it. I would prefer that the city do it. It is crystal clear from the data presented this conference, accepting either the State or the Federal data or Dr. Quebedeaux's data, that the problem hasn't been solved in the past and probably won't be in the near future. If you were to disregard the Federal data presented to this conference and accept without question, which I do not, the State data presented, one fact remains -- we have a very critical problem in Galveston Bay. We submit that immediate salvage operations must be undertaken to salvage Galveston Bay from complete destruction, or for use for any purpose other than as an industrial and municipal settling pond. And we now call upon all units of government to cooperate effectively with each other and if possible with industry and municipalities that discharge sewage and other wastes, and to do it without further delay.

Mr. Gordon Fulcher has stated that in the spirit of cooperation the State of Texas is willing to try to work with the Federal Government. Federal representatives have indicated similar feelings. We request that all agencies get together in a unified effort to solve the problem now before it is too late.

I wish Mr. Fulcher hadn't had to leave. I was very disappointed by one line of thought repeatedly expressed by Mr. Fulcher, and that is that other areas of the State would like the Houston area's industry if we don't want them. I don't like the implications of that statement. We want the present and future industry. We feel that the environment and industry can co-exist and that waste can be treated.

If that statement by the Chairman of the Texas Water Quality Board is an invitation for industry to move elsewhere in Texas where they can pollute without fear of enforcement of the Texas laws, then we must be losing ground. And I truly hope that the EPA will enforce, and the laws will be enforced uniformly throughout Texas.

On the opening day of the conference, Mr. Quarles stated that the technology is available to clean up the air and the water in this country. We ask that that technology be applied in this State and in this country now.

I would now like to direct a few remarks to some of the workings of the Texas Water Quality Board. This agency is staffed with a hard core of dedicated personnel. The technical staff, which I deem to be that below the level of the Executive Director, Mr. Yantis, appears to me to be a dedicated group, and I would like to second the remarks made by Mr. Fulcher commending them on their efforts, their long hours without overtime.

Some of these people pull a boat behind their own personal cars. They are paid mileage. I pull a boat myself quite frequently, and I just don't think their State compensation covers it.

I would like to point out some of the problem areas that are encountered in this area. Mr. Fulcher pointed out that the Water Quality Board has been operating in the State of Texas on less money per capita than the Texas Highway Department spends per capita to pick up beer bottles and cans along the highways of this State. Gentlemen, this is not the fault necessarily of the Texas Water Quality Board. The fault here lies with the people of this State and with our elected representatives.

The Water Quality Board requested for the year 1972 operating budget the sum of $5,224,862 and for the year 1973 the figure of $6,510,353. The Texas Legislature in its infantile wisdom appropriated the board for the year 1972 personnel services total $2,744,032, for the year 1973, $2,918,163. This is somewhat less, needless to say, than the board requested. However, these figures allow for an increase in the number of what the board terms the classified personnel and other employees of the board. One area that was drastically cut by the Legislature was in that of professional fees and services. As I understand it this item includes all analytical testing done on behalf of the board, which they do not have the capabilities to do themselves. The board staff members make certain tests such as DO level, but much of the sample data after it is taken by them must be contracted to other parties or agencies and tested. The figure requested for professional fee and services for the year of 1972 was $1,871,240 and U. B., and for 1973 was $1,820,780 and U. B. The sums appropriated by the Texas Legislature for these items was $200,000 for 1972 and $200,000 for the year 1973 -- a reduction in each of the 2 years in question of over $1.6 million. The $200,000 figure is the same as it was for the years 1970 and 1971.

Now, gentlemen, if my information is correct, and I assume that it is, this means that the Texas Water Quality Board cannot run any more samples than they have in the past; that the Legislature has limited their effectiveness and their function in this regard to the same level that it was for the prior

2 years, which we do not feel has been sufficient. Apparently, the EPA does not feel that it has been sufficient. Therefore, the only recourse for the next 2 years is an extensive Federal sampling program to supplement the State sampling program.

We do not want to wait another 2 years for the Legislature in Texas to meet to give this board more money.

Our Legislature only meets every 2 years, unless they are called into special session, but budgetary matters are set up 2 years in advance.

We want the samples run now. And if it takes Federal sampling to do it, then that is what we here request now.

I would like to see a lab and office of such size and sufficiently manned in this Gulf Coast area to do the job.

We do know that the EPA in January of this year commenced a sampling program in this area. I am confident that this sampling program was an expansion of some small preexisting Federal sampling, and the Coast Guard had been running samples. We request that the Federal sampling program be continued and that these results immediately be given to the Texas Water Quality Board, and that these two Agencies cooperate in bringing whatever action may be indicated as a result of these samples. The samples I now refer to are not dissolved oxygen samples but source sampling. We have more than enough data to tell us that the DO levels in the channel violate the State standards. Texas A & M runs a boat -- a very fine vessel, I might add -- up the channel once a week. I see no need for the State Water Quality Board to duplicate that effort. I think the State Water Quality Board should use A & M's data. And, furthermore, I see no need for the Federal Government to also duplicate these samples.

Incidentally, Mr. Yantis could probably tell us the laboratory facilities onboard this vessel are fantastic, more complete, and far better than the Texas Water Quality Board District Office here, and I think than for the entire State.

I would have to defer that to the gentlemen on the water board. They have a fine lab onboard the boats and have the capability to run the samples as the boat runs up and down the streams.

Source sampling can only be done for the next 2 years by the Water Quality Board within its budget, and we're simply going to have to have Federal samplings to augment this terrible lack of State appropriations in this regard. I would point out here that the Texas Water Quality Board was given about $400,000 for items which it had not requested. It is well known that one man controls appropriations passed by the House in Texas. This one man is from West Texas, and I think a lot of people in this area feel that he may not be very responsive to our needs or desires in the Gulf Coast part of Texas.

Could it be that this $400,000 could have been devoted to source sampling? We can only speculate and request that the Federal Government augment the State of Texas source sampling for the next 2 years, or until such time as the Texas Legislature appropriates sufficient funds for this purpose.

Much has been said about matching Federal funds for construction of sewage treatment facilities. We have taken many times a very strong and adamant position that sewage, municipal waste, and industrial waste should receive proper treatment. We have advocated on many occasions recycling, and better and effective use and reuse of the available water supply. It is without question that the municipalities of this area are going to have to give far better treatment to their sewage than they have been in the past. Many speakers have alluded to and have discussed the matching Federal funds program and much effort has been expended by Congressman Bob Eckhardt and many others to make these funds available to the municipalities of Texas. However, not one speaker has mentioned one problem in this regard.

In this regard, which is one massive problem, it is a massive thing in the taxpayer's pocketbook, one very grave and very serious problem -- a massive fly in the taxpayer's pocketbook.

The responsibilities for approving plans for construction, seeing that the project designed will satisfy the needs and will adequately serve the purpose for which it is intended, and of supervising the construction of the facilities is vested in the Texas Water Quality Board. If, the Texas Water Quality Board cannot carry out its functions because of lack of adequate funding, how then can this agency carry out this monumental task of the matching Federal funds program. I submit, gentlemen, that it cannot.

I have been told by members of the board staff that there are presently some 300 projects under consideration by the board. How can the board, with its grossly inadequate staff, properly process these applications and see that the projects will in fact serve the purpose for which they are intended -- that is adequately treating the waste.

This is not necessarily the fault of the Water Quality Board but the fault here lies with the Texas Legislature in giving the board the responsibility and not providing them sufficient funds to do the job. I can see no justification for spending the massive sums of State and Federal money which will be involved in these projects, as desperately as we need the proper sewage treatment facilities, if the projects won't serve the purpose and won't properly treat the waste. We now call upon the EPA and the resources of the Federal Government to insure that these funds are properly expended and that these projects are properly and adequately designed. If the Federal Government cannot or will not do this, then we now ask the EPA to see that Federal matching funds are withheld until such times as these simple requested things can be assured. All we want is proper treatment of the waste. We don't want local, State or Federal money wasted on construction of facilities that cannot and will not do the job.

Mr. Fulcher, in his remarks, mentioned that there have been a few unpleasantries between the Texas Water Quality Board and certain officials of the city of Houston. The attitude expressed on the part of the city officials was very poor, at best. At one point the press reports -- and I assume they are accurate -- indicated that the Director of Public Works told the Water Quality Board they couldn't do anything to the city of Houston if the city didn't treat its waste. This was a very highly publicized thing in the local press since then.

This same Public Works Director previously, in prior years, had gotten on his soap box around town and had requested the people of Houston to vote bond monies for sewer treatment facilities. These bonds were from time to time turned down by the voters in this area, which is indeed extremely regrettable.

However, I cannot see this as justification for the attitude which has been expressed by many city officials throughout the State. Mr. Fulcher, Mr. Yantis, and members of their staff are better authorities on this matter than I. But we submit that these municipalities may need some Federal inducement -- some strong Federal inducement -- in order to get them to properly treat their waste.

Sewer rates can be adjusted to aid in the cost of proper sewage facilities, and I believe even in many instances throughout the State the same will be true -- and that in the city of Houston we're now building for the past; that we are not now building for the present, let alone for the future. This is indeed regrettable and evidences the attitude on the part of many municipal officials. Houston is growing at a fantastically rapid rate. We must catch up in our construction program quickly.

The Federal recommendations contained in the conference report cannot be met without new construction. The city is building right now and will shortly have on stream the Northside and the Sims Bayou sewage treatment plants. However, I do not think that these plants are going to relieve the situation. More construction must be undertaken, should have already been undertaken. I suppose that in addition to having the EPA or the Texas Water Quality Board set the sewer rates for the various municipalities, then the next logical step would be to stop adding to the load of the existing facilities. This could be done by having the appropriate agency, State or Federal, require the cities to stop issuing building permits for new construction until such time as the sewer treatment facilities can handle the load to be added.

In the city of Houston this has been done by the city itself. Mr. Cape, the same Public Works Director, addressed a meeting some months ago which I attended. I cannot recall the specific dates, but investigation can readily substantiate and establish the dates, etc. However, Mr. Cape, for a period of time, did in fact withhold building permits in the city of Houston for this very reason. I submit that this needs to be continued and increased not only in the city of Houston but probably in many cities and municipalities throughout the State. I am very excited about the growth of Houston and the Gulf Coast area, and I want it to continue -- but not at the price of having to put man on the endangered species list.

I am firmly convinced, and Mr. Quarles agrees, that the technology exists to properly treat our industrial and municipal waste.

We may not be able to get that last little bit out, but there is a lot that can be done to utilize existing technology, so the experts tell me.

This will cost money and will ultimately have to be paid by the consumer. We know that -- but proper treatment is indispensable. We request that the existing technology be applied so that the threats and dangers to Galveston Bay are alleviated. If it requires such drastic action, then we request such actions to be taken without delay.

We believe that regional treatment of municipal waste is far better than the program presently in effect in this portion of the country. I mean the water district and the large number of small treatment plants. We do not believe that diversion is the answer; we believe that treatment, proper treatment, is the answer.

You have heard the presentation by the Gulf Coast Waste Disposal Authority and how that additional structure of government proposes to solve the problems of waste treatment in this area.

I do not believe that the Gulf Coast Waste Disposal Authority as it is presently constituted will have the desired result. Their presentation included a thank you to the Legislature for the tools with which to do the job. We don't think that the Legislature has yet given the agency the tools with which to do the job. HEP has proposed some legislation this year which died in committee, along with most other environmental bills, and as almost did the appropriation bills for the Water Quality Board and for the Air Board.

I thought there were enough sides to this conference prior to the time the Gulf Coast Waste Disposal Authority representative instituted a third side. He said the Federals were on one side, the State on the other, and the Gulf Coast Waste Disposal Authority still on another side. Too much government at any level can be detrimental and can slow down the necessary processes.

It was pointed out that this regional authority has jurisdiction in three counties which comprise 95 percent of Galveston Bay. If you will recall, the map presented by the Gulf Coast Waste Disposal Authority, the portion approximating the 5 percent not included in their jurisdiction is in Brazoria County. There are a number of industrial discharges in Brazoria County, and it would only seem logical and reasonable that any authority which is to have regional jurisdiction would also have jurisdiction over Brazoria County, which is not the case. I would point out that in Brazoria County is found what is probably the largest single industrial discharge in Texas, if indeed not in the country. This discharge does not discharge directly into Galveston Bay, yet it does discharge in the Brazos River.

VOICE: The world.

MR. GREENE: I am advised the world. (Laughter.)

And it is not part of the Glaveston Bay system, but there are other discharges which do go into Galveston Bay from Brazoria County. Nor does the

Authority have the jurisdiction over any of the Trinity not in the 3-county area. In a few moments I will touch on the Trinity problem, but it would seem logical that if the Authority would be effective in aiding in the salvation of Galveston Bay, then the Trinity should also be included, and this would include the Dallas-Ft. Worth area for that area discharges into the 3-county area of the Authority and Galveston Bay.

We were told by the Authority representatives that they were going to develop a master plan. He did not say when they were going to start developing a master plan and when they anticipated completing it. Last November this Authority called for a tax election. During the election, I asked the same representative of this organization what was their timetable for adopting a master plan. I got no timetable. We were not told when they proposed to do it. The Legislature and the Authority's enabling act directed them to adopt a master plan. Before I could support a tax for this agency, I wanted to know a timetable.

I want to make it crystal clear I was not asking for the master plan to be developed at that time; I only wanted to know the timetable for the development which we still haven't gotten.

The agency's representative also told us that the agency had sweeping enforcement and police powers. This is true. The agency does have sweeping enforcement and police powers. However, in response to direct questions of mine last November, the agency had no timetable for using the sweeping enforcement and police powers, and representatives of the agency have been repeatedly quoted in the press in the past as saying that they do not intend to enforce and that they think the Texas Water Quality Board has done an adequate job of enforcement. We certainly do not agree. Apparently the EPA does not agree. And the Texas Water Quality Board itself has indicated that on occasion it has had difficulty in getting the Attorney General of the State of Texas to file suit on pollutors when the Board has requested that such suits be filed.

A number of statements were made by the representative of GCWDA about their work being 100 percent industry-financed. They were given by the Legislature, through the Water Quality Board, the sum of $100,000 for 1970, and the sum of $100,000 for the year 1971, and the sum of $150,000 for the years 1972 and 1973. No mention of this was made by the GCWDA's representative.

If the implication was intended that all of their money came from industry, this is simply not the case.

Subsequent to the election, this organization on many occasions has tendered its help to the Authority. The Authority has not seen fit to utilize this organization although certain representatives have stated they would. On the contrary, they have submitted legislation to the Legislature which was passed and which we were not aware of until after signature by the Governor.

This legislation completely, in my opinion, destroys the concept of regional treatment and is an attempt to come in the back door and to do something which the voters of the Authority's area say they didn't want done through the front door with tax money.

This bill which is now law creates mini-districts. The Authority can create mini-districts in certain portions of the counties in their jurisdiction and hold an election in that area and try to get tax money.

I don't think the people of this area want to use tax money to construct an industrial treatment plant, or to operate treatment plants, or to supervise industrial plants. We think industry should do this itself. They don't have definite plans that they have disclosed about regional plants for municipal systems, as they have for plants for industry.

If you recall, the 3 plants to which they refer were all industry -- all industrial plants.

They do have a 10-year program. I submit that the GCWDA will only continue to cause delays in getting the job done.

With the right legislation we feel that the regional concept has merit. However, the GCWDA is not it at this time. And we ask that the EPA look very closely at any Federal funds that might be directed to this agency.

Unfortunately, I did not get to hear all the H. L. & P. presentation on Cedar Bayou. I heard part of it. And the Cedar Bayou facilities commented on in your black report, I will not dwell on it further.

I would point out, however, that in lieu of rate reductions, we receive in the mail publications* from H. L. & P. on Cedar Bayou and in which they say that their concern is for the environment.

I, Mr. Stein, have reproduced some of these copies for inclusion in the record, and they are in living black and white, since you do not reproduce in color.

CHAIRMAN STEIN: We reproduce in glorious black and white. We use color schemes for our reports, as you might know.

MR. GREENE: The pictures on the copies are not as good as they might be. But if you want better copies, perhaps you can ask H. L. & P. for them.

That is all I have.

I do not intend to undertake to comment upon the data presented by various scientists to the conference. I am not capable of such an undertaking. I would like to point out one fact though that I have not yet heard mentioned, and that is when you talk about the available oyster reefs in Galveston Bay, you must consider the vast areas of oyster reefs which have been subject to shell dredging. These reefs are not in existence now, or are only partially in existence, and are apparently not considered in the figures presented. Now, if you reduce the total area of available oyster reefs by dredging, then you would thereby increase the area of open reefs on a percentage basis.

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* unavailable

As for making a recreational body of water out of our stinking ditch, the channel, I agree that this should not be done. The way to keep the channel from being used for recreational purposes is not by killing all marine life but by making a statute prohibiting such use for recreational purposes and enforcing that statute.

There are references in the black bound report to the effect that the nutrient load going into Trinity Bay is excessive. We are concerned with this not only as it effects Galveston Bay but as it also effects the entire Trinity. Improper or inadequate waste treatment anywhere on the Trinity contributes to the load in Galveston Bay. The Texas State Department of Health reports indicate that there are

146 sewage treatment plants on the Trinity before it enters Trinity Bay. Much of this sewage is apparently very poorly treated if treated at all. This is in addition to the problem of pesticides and agricultural runoff and industrial waste.

The effect of these discharges is apparent in Lake Livingston. Incidentally, gentlemen, your Federal report on fish kills -- a copy of which I recently acquired for 20 cents from my own personal funds -- is incomplete. I do not know the input for this report which is labeled "1969 Fish Kills Caused by Pollution." It is incomplete in that on August 5, 1969, there occurred a fish kill in Lake Livingston, Texas. This kill was caused by inadequate dissolved oxygen. This inadequate DO was caused, according to Dr. D. Gus Frug, by pollution-exessive nutrients. Dr. Frug's report is entitled, "Progress Report No. 1 to the Office of Water Resources Research - Department of the Interior." It is "No. EHE 70-09 CRWR-57, Selective Withdrawal at Lake Livingston, Preliminary Evaluations 1969." (Laughter.)

This report indicates tragic things are

occurring in a lake which has not yet been filled for the first time. The input to Lake Livingston by the Trinity River is dealt with by Dr. Frug in his report and I will not dwell on them here any further. I would point out that despite the efforts of the Water Quality Board and Trinity River Authority, fish kills have occurred this year in the river above Lake Livingston, as they have occurred in this river apparently for many years, and the Texas Parks and Wildlife Department has been quoted in the newspaper as predicting fish kills this summer in the lake itself. Apparently the nutrient load on the bottom of this new impoundment is already fantastic and with the right conditions, fish kills are predicted. There are also reports of raw sewage being discharged into the lake as recently as the first part of May 1971. As I understand, that particular situation was a result of under-construction of facilities. I understand these facilities were approved by the appropriate authorities but they were simply not sufficient to handle the load. I also am told that corrective measures in this one instance are being undertaken promptly and voluntarily in conjunction with the Trinity River Authority. However, this points out and underlines one more instance of our fears that Federal funds will not be properly used. We are also concerned that State and local funds are not properly used.

Below Lake Livingston, which has been referred to as a 85,000 acre sewage settling pond, lies another problem which is referred to in passing in the report and which poses a devastating threat to marine life in Galveston Bay. I refer now to Wallisville Reservoir. It is an earthen impoundment some 39,000 feet long. It is to be a 4 foot high earthen dam. It is now presently under construction by the Corps of Engineers. As we sit here and confer in this conference, the machinery is working.

This organization has requested, and again repeats that request, that the EPA use its offices to stop construction of Wallisville reservoir immediately so that proper evaluation can be made.

I submit that even if you were to clean up all of the waste discharges into Galveston Bay, and permit the completion of Wallisville Reservoir, that Galveston Bay will be written off the book as a source of commercial and sport fishing. I was reminded of

Congressman Eckhardt's remarks about the estuary systems along the channel which had been completely devastated by pollutants and do not now support the nursery and marine life which they previously supported. The Corps of Engineers is approaching the problem in a different fashion. They are building this earthen dam across the nursery area at about mile 4.4 from the confluence of the Trinity and the Trinity Bay. Dr. R. G. Baldauf of Texas A & M University has done extensive studies on this project. He concluded that the area contained thousands of acres of prime nursery ground which are utilized by blue crab, brown and white shrimp, and menhaden, and that the completion of the Wallisville Reservoir will cause permanent declines in the numbers of these species. It would also follow, I submit, that species which are dependent on blue crab, shrimp and menhaden would also decline in Galveston Bay and this portion of the Gulf of Mexico. The Corps has admitted in writing that it cannot reconcile its findings with the Baldauf Report, or with the conclusion of the Texas Parks and Wildlife Department, or of the U. S. Fish and Wildlife Service.

The Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife has concluded that, and I quote, "The project will cause large losses to commercial fishing."

The Texas Parks and Wildlife Department has stated, and I quote again, "It is difficult for this department to comprehend how construction of Wallisville Dam will enhance the natural environment, particularly from an ecological or biological viewpoint."

One of those agencies was the Texas Parks and Wildlife who also computed it would cause a loss in commercial fisheries of some 7 million pounds per year. All of this is available from the United States Corps of Engineers environmental statement.

Gentlemen, after reading the report on this conference, after hearing portions of the speakers, and after having read the Corps' environmental statement; and after having read and studied Dr. Baldauf's Report, it appears to me that the death of Galveston Bay is approaching as fast as the Wallisville project is completed. I might also point out that this will not be used according to the Corps of Engineers for conservation purposes for some 25 years.

Dr. Baldauf pointed out that if the location of this reservoir were changed to a point about 4 or 5 miles upstream from its present location that it would not cause near the damage to the marine life of Galveston Bay. Gentlemen, this project should be stopped and we submit must be stopped. We ask for your immediate action and help so that a full review and evaluation of all salient facts and alternatives can be undertaken. We are not asking for a complete prohibition. We are asking for a temporary halt so that the impact of this project can be properly evaluated and an appropriate course of action be undertaken. But if it isn't at least temporarily halted in the very near future, I fear that it will be too late to do much about Galveston Bay from the commercial and sport fishing standpoint. We can then decide if we want to treat the waste going into the bay -- we may not have to. There may not be anything down there of substantial and economic importance worth saving.

In summary, HEP, Inc., recommends the following courses of action which are not referred to in the Federal report: 1) Interagency cooperation, 2) Extensive Federal sampling in this area, 3) No Federal funds for State and municipal matching projects without sufficient assurances that the projects will serve the purpose for which they are intended and will be effective, 4) That Government intervention be utilized where required to set sewer rates and to withhold building permits, 5) That a complete evaluation of the effects of the Trinity River on Glaveston Bay be included in this conference, 6) That Wallisville reservoir project be stopped pending a review and evaluation of all salient facts and alternatives.

Gentlemen, this organization is a volunteer organization. We do not have at our disposal the resources of the Federal Government. We do not have the resources at our disposal of the Texas Water Quality Board or any other State agency. In English, this means we are a very poor organization financially.

However, we have offered in the past and again offer our help in any way that we may be of assistance to the Texas Water Board, to the EPA, Gulf Coast Waste Disposal Authority, and any other agency or entity in combating these problems. We will do our best within our limited financial means and as far as our manpower and woman power resources will take us.

We are not concerned, as Mr. Quarles was not concerned, about "Who Hit John." We know about Johns. We know of them. Based on evidence presented here by the Texas Water Quality Board and that by the EPA, nobody as of yet has hit John. The Water Quality Board has done a lot. As Mr. Fulcher states, "Much remains to be done." Our analysis of the data presented is that we are looking up and can't see bottom. Our concern is who is going to hit John? Who is going to see that the job is undertaken and done immediately without further studies, without further delays -- before we here on the Gulf Coast drown in the john. (Laughter.)

Thank you. (Applause.)

MR. YANTIS: Thank you, Mr. Greene.

CHAIRMAN STEIN: It is now 3 o'clock. That is our customary rest break. Let's come back at 3:15, if possible, not later than 3:30.

(A brief recess followed.)

CHAIRMAN STEIN: Let's reconvene. Please take your seats, and you people in the lobby who intend to come in, please do so.

I would like to make one announcement. I know you will be glad to hear that Dr. Quebedeaux has asked for permission to extend his remarks, but he has agreed to do that in writing and we have accepted the material.

MR. YANTIS: The next speaker -- and I will try to read two or three so you can get yourselves oriented -- is Barbara Bunger from the Channel Area Subsidiary of HEP; then Shelby Bryan; then, Victor Emmanuel.

Now, I will only go that far because I have promised Mr. Jim Regland that he will speak today, and as near the end of the meeting as possible. But the only way I can do that is to see how much time these people take and then take another cut at it. So, Barbara Bunger.

MRS. BARBARA BUNGER

H.E.P., INC.

CHANNEL AREA SUBSIDIARY

SEABROOK, TEXAS

MRS. BUNGER: I'm afraid Al Greene didn't leave me much room to elaborate on. Rather than be redundant, I will delete some testimony and give only what I believe has not been touched upon and what our recommendations are.

Ladies and gentlemen, I am Barbara Bunger, a respresentative of the Channel Area Subsidiary of Help Eliminate Pollution, Inc. We are a group of citizens whose goal is to make our area a cleaner and healthier place in which to live.

It is unfortunate that this hearing had to be called by the EPA. It would have been far more desirable to have clean water already, or at least have assurance that the Galveston Bay water quality was improving. That is not the case. The quality of Galveston Bay and its tributaries is getting steadily worse, and there are no plans for improving the situation.

You have heard the EPA representatives score the Texas Water Quality Board for allowing the Galveston Bay water quality to deteriorate. You have also heard the Texas Water Quality Board deny that they aren't improving water quality. Who is to judge?

The answer is clear from the Texas Water Quality Board's own files:

For example, "E. I. duPont Waste Control Order 474 of March 6, 1971, superseding permit of March 29, 1967 allows a volume monthly average 9.5 MGD, allows a total suspended solids monthly average 50 mg/l, BOD monthly average of 50 mg/l, COD monthly average of 200 mg/l, and oil and grease monthly average of 20 mg/l.

The former permit of 1967 allowed: Volume monthly average of 4.3 MGD, total suspended solids monthly average of 35 mg/l, BOD monthly average of 50 mg/l, COD monthly average of 200 mg/l, and oil and grease monthly average of 20 mg/l.

This 1967 permit is the one used to calculate the waste discharge numbers shown on page 58 of the EPA report. The EPA can be forgiven for not having the latest information on how "well" the Texas Water Quality Board is cleaning up. Let's help the EPA a little and update the EPA report.

E. I. duPont flow -- change, and the change increased the flow from 4.3 MGD to 9.5 MGD,oil and grease -- no change, total suspended solids change from 1,257 pounds per day to 3,950 pounds per day, BOD change from 1,795 pounds per day to 3,970 pounds per day, COD change from 7,192 pounds per day to 15,900 pounds per day.

Does this sound like an improvement in water quality?

How can any of the Water Board members actually come up here and with a straight face say they are doing a good job, when even the permits are getting worse?

In the issuing of this amended permit, the TWQB made absolutely no attempt to tie the amount of discharge in with the stated water quality standard for that portion on the Ship Channel.

There is little wonder that the industry representatives so loudly cheered Mr. Yantis Tuesday. The TWQB started off their permit system by asking each pollution source what kind of effluent permit they wanted, then rubber stamped the replies they received. Now that the TWQB has grown and the water quality is getting steadily worse, to continue to grant permits by request is incredible. No, it is disgusting!

It is apparent that the TWQB water quality standards (Appendix A of EPA report) are a farce and were apparently issued only as "window dressing" to give the appearance of action without action. On page A-19, the TWQB water standard calls for a dissolved oxygen of 4.0 mg/l minimum.

A study of Texas A & M indicated that to achieve only 2.0 mg/l of dissolved oxygen (or half as good) at Morgan's Point would require a 95 percent reduction in the BOD input to the channel. In other words, the TWQB has issued permits legalizing waste discharges 20 times greater than would result in water quality half as good as the TWQB's own standards for dissolved oxygen.

To single out the TWQB as the only culprit is, of course, absurd. There is no single bad guy in a black hat to shoot down so we can have clean water and live happily ever after.

The list of bay polluters is long, and it would serve no purpose to enumerate them. HEP didn't come here to merely point out the problem. There is much work to be done to achieve a clean bay. We submit the following recommendations:

1) The TWQB revise all waste discharge permits to reflect the water quality standards shown in the EPA report Appendix A. Revisions to be complete 6 months from this date.

2) The TWQB set a timetable for compliance to the new permits with minimum $2,000 per day fines for noncompliance. No exceptions to the timetable would be permitted. Those polluters behind in their cleanup schedule would be fined whether they are acting in good faith or not.

3) That the municipalities immediately stop issuing building permits for areas where sewage treatment is inadequate to meet the new TWQB permits.

4) That the municipalities and industries design for maximum waste treatment -- the goal being drinking water quality. The reuse of water would have the additional benefit of halting the land subsidence in the Houston-Bay area.

5) That the State and/or local governments ban the sale and manufacture of nonbiodegradable and high phosphate detergents.

6) That each and every one of us, individuals and corporations alike, evaluate the things we flush

away and try to minimize the wastes we discharge.

I would like to add that we agree with Dr. Atkisson that this hearing has sort of turned into a sort of grievance rather than accomplishing the purpose for which it was intended -- an opportunity to sit down and hammer out a workable solution and a timetable for cleaning up the bay. What we need are accomplished efforts and accomplished action from all groups involved.

The statement I just gave was prepared by the Technical Committee. Unfortunately, they couldn't be here -- some of them couldn't be here -- because they work for the Ship Channel industries. (Laughter.) Which makes it difficult.

I am not an engineer, but I live by Galveston Bay, and I would like to ask a few questions of the Texas Water Board and the polluters.

How do you measure intangible pleasures one derives from the bay?

Industries measure the benefits they derive in dollar signs, which is meant to justify the destruction they cause.

How can you place a monetary value on

boating, sailing, fishing, eating seafood, and particularly the joy of a youngster when he catches his first fish or takes his first swim. By your hedging and inability to comment, please don't allow these pleasures to be completely taken away from us.

You say Galveston Bay isn't polluted? But how many of you have ever cleaned a crab from the bay and then eaten it? How many of you have been close enough to the water to smell its stench? How many of you swim in it?

The other day I cleaned some bay crabs, and was disgusted to see the gray-black lungs and the oil in their guts. Would you eat them?

We have sailed in our small boat on some fairly calm days, but it was not very pleasant because of the horrible smells of the bay water. I invite any of you polluters and bay members to join us. Unfortunately, we don't have the luxury of a yacht to elevate us far above the smells and protect us from the bay realities.

Also how many of you would allow your children to come swimming with us, particularly if I told you they must have typhoid shots first -- advice given by many of the local doctors? And that is not all. You say there is no oil or grease in the bay? Then what is the sticky black gunk that washes ashore after a high tide?

I am not here just to complain or restate a problem that is obvious. We are homeowners. We are willing to pay for improved sewage treatment. We are willing to pay the cost of cleaning up industrial pollution through our purchases. We are willing and eager because we realize we must be if we want any of the natural beauties preserved for our children to enjoy. All we are asking is for the water board to set realistic standards and a timetable for cleaning up, and then do it.

Thank you. (Applause.)

CHAIRMAN STEIN: Thank you.

MRS. BUNGER: Ed Richards, a Rice University student, wants to follow me.

MR. YANTIS: How long does he want?

MRS. BUNGER: Approximately -- not over 8 or 10 minutes.

MR. YANTIS: Well, go ahead.

MR. EDWARD RICHARDS

DIRECTOR, H.E.P., INC.

PASADENA, TEXAS

MR. RICHARDS: I am a member of HEP. In fact, a Director.

CHAIRMAN STEIN: Let's have your name.

MR. RICHARDS: Ed Richards.

I am a Director of HEP, but I am not speaking as an HEP member. This is not an official statement of HEP; this is more or less a personal statement in regard to activities of the last couple of days.

I would like to talk about what I consider a really pertinent problem away from the technical problems, because I think the testimony of Mr. Moore, Professor Busch, Mr. Luyties, Dr. Quebedeaux, Al Greene, Barbara Bunger and others pretty much sum up a lot of the technical points, and I don't think that it needs to be dwelt upon any longer.

What upsets me is, well, the State is a singly unresponsive organism to work with. There are a lot of people who like to work, and they don't have any way of doing it.

We see some of the EPA programs in a better light because we have worked with Federal Agencies before -- particularly NAPCA -- and found them fairly responsive.

Mr. Yantis was upset that the high school students who were here and myself appeared. Well, we are quite credulous of the information we were given by industry and by the State. Yet I don't really see any reason for his amazement, because, as Mr. Moore and the other people pointed out quite well, we have been misled in the past. There is no real reason to believe that we aren't being misled now.

I worked with industry before, and I don't see them as all bad people. In fact, there are a lot of good people who want to do something. This is not always reflected in public statements, obviously.

I don't know. There has been an interest voiced in opinions of youth, and I would like to speak briefly on one area I do consider myself to be quite knowledgeable on, and that is being young and very impatient.

The group most obvious by its presence at this conference has been young people who are here and who are concerned enough to come on their own time to try to initiate their own actions -- Garner Park, or any particular organization that is helping them come here.

I know anyone familiar with the biochemical evaluation of life and physical environment realizes the degree that man and all life is intimately tied to the environment.

More and more, the term biosphere is used to describe the earth. Inherent in this concept is the understanding that all life on its form is, in effect, one large organism.

The result of this is no individual course or nation can act without influencing those around them, and can influence by the feedback inherent in the environment.

The American Indians have this as the basis of their culture. They felt the environment was alive. They lived in a stable relationship with their environment. Their lives expressed more about the environment and man's relation to it than our language can ever express.

Western society has never reached its equilibrium. It has always seen the environment as something to be conquered.

This leads to a technical society. It is a society with good machines, good organization, and good minds -- with very little human values.

What this did to the Indians is clear. They had the idea and the humanitarian intent. They didn't have the machines or tools. They were crushed, and they are gone pretty much. And the ones that are left are in pretty dire straits.

Our society has grown in complexity at an exponential rate. The last 20 years have seen more technical progress than the entire history of man up to this point. Suddenly, the lack of humanism is beginning to kill us.

I think this particular statement makes a very good point about my generation. We have grown up with more technical change than any generation ever has.

The environment, from 1950, when I was born, to date -- there has probably been a tremendous change in society and it is changing tremendously now. We have to adapt to more change than any generation has had to before.

I am 21 years old, and I have been actively interested in technology for 13 years. There are others with this background my age.

We view man's mind and its natural extension for technology as but a tool of man and his mind, in a way a lot of people view religion.

Some of us have also developed a humanistic way in looking at the environment. We find it is not a contradiction. But a knowledge of technology and what it can do, what your generation, or most of your generation -- some of you are also young -- lacks is not the humanistic instinct, but the total enculturation of a technology without absorbing the inherent values that came from the earlier societies. We aren't necessarily bound by traditonal family life and strains in this type of thing.

We see technology as a tool. It can lead us to whatever we want to do with the world, with the environment.

Our rules are a little different. Unlike the Indians, however, we have the tools, and we are very impatient with what we see going on around us.

Those of you who understand the workings of a city and complex environment of the city, such as New York City, always realize how extremely easy it is to upset this kind of balance and what a precarious balance it is. Two days of water failure in New York would be a disaster. Look around you. I don't know. People can upset this easily. A lot of people realize this. Take a look around you. You want to feel that things are not as bad as they seem. You want to see a change, to work and change things. There are a lot of people who would grasp at any straws of hope at all from the Government.

They look around and what do they see? The music of this culture, unlike probably any other, is the medium of exchange. It tends to unite the ideas and communicates between people and various areas of the country and world. If you look to the music, it is geared to the 12-year-olds. Listen to people like Jefferson Airplane and the Grateful Dead and the Jefferson Starship, and perhaps you will be upset at what you hear. This isn't tradition. These people are talking about what is going on around them. They are aware.

You see the systematic murder of black revolutionaries.

We see heat in the river. We lost a lot of innocence at Kent State. We lost a lot of innocence at Jackson.

We see great big movie stars governing California.

It is our world, and we are going to change it. The only disagreement is how.

People like Nader's Raiders do very good work, but they are only playing the games of the society; they aren't trying to change the rules.

There is one point we all agree on, however, and that is education. We want to raise the next generation by different sets of rules. We are not raising the Government or anyone else's children

There are 3 modes of action. One is dropping out and forming an alternative society. There is a lot of this going on -- communes and this type of thing. Unfortunately, these people are putting themselves in the position of the Indians. They have the ideas, but not the tools.

One form is radical politics. You see buildings burned, buildings being occupied, campuses taken over. We know it is a lot easier to destroy than create. However, something very few people realize about radical politics is it is a lot more fun. It is not very hard.

If you look at the occupation of a building as opposed to sinister acts. It is a couple of hundred people getting together. They want to have a party. They just happen to have it in the administration building, and that is generally the thing that pervades this sort of thing.

The bombings that have gone on are an entirely different matter. People realize they can't blow up society. It is ridiculous to think in terms of that.

It is extremely easy to destroy the security of a society. I think the best example is what happened to Canada. A very small group of people disrupted the country. It is not very hard to do.

I think you people see the point on that.

The third course of action is the hardest. There is not much of a place for us in the system. We have to play a lot of games. You have to cut your hair, wear a coat and tie, force your way in, and have to have a lot of faith in what you do. Because, as was pointed out yesterday, even if you are right, the world may not agree.

However, that doesn't really matter. A lot of concerned people tell me I am wasting my time -- that no hope lies in the direction of working within the system to change it. However, I don't believe this.

Mr. Vanderhoof and Mr. Stein, you give me a lot of hope in this. The State's action in the past and in the last 4 days is exactly the reason the young people don't work through your channels. If you wonder why buildings burn and more are going to burn, it is because of this government opinion that leads to this point. You have a duty to establish communication with youth. No, I am not sure you can; it may be too late.

I would like to clarify one point. If it wasn't for the people like the League of Women Voters, HEP, Houston Sportsman's Club, and other civically-concerned groups, there wouldn't be any young people working on it.

We have different politics, different backgrounds and ages. We all believe in one thing -- people. Our generation is inheriting the world or overtaking it, I don't know which it is. We want to work with people like this because our aims are the same.

I don't know, but this is my opinion, and it is the opinion of a rather small minority of people. However, as you people are better aware than any others, this country is run by small vocal minorities.

Politics generally is run by small minorities who influence a number of people who don't want to do their own work.

I would like to stop here.

I haven't begun to say what I would like to say. If I haven't made the point by now, 3 days more of talk wouldn't help.

CHAIRMAN STEIN: Thank you.

(Applause.)

MR. YANTIS: Mr. Richards, I agree with you that what I called the other day the "clash of cultures," or the "competition for ideas," more than any other thing, is really what this is all about. We could talk about it for a long time and I think it would be most profitable. I don't know that this is the right place to do it, but it has to be done.

But I also talk about my family and how I have trouble talking with my children, and I am sure I will have trouble talking with my grandchildren.

But we do have a need to talk to you. But you have a need to realize that you will someday be my age and that there is something that you can learn from other people. And yet you have to be able to learn it without being a sucker, as you see it.

But I think that that is what it is all about -- for people to communicate, to learn who they can trust, and who they cannot trust, and go from there.

But it is a people problem. That is all it is. And I would love to talk to you for 3 days about it, but we cannot. But I hear you. But in return I hope you hear us.

Now I do have another college student. I am going to deviate from what I just said because he is roughly of the same age.

Is Mark Wood here?

MR. HOOPER: Mark Wood or Mark Hooper, sir?

MR. YANTIS: Both of you. I want the one with the University of Houston first.

MR. HOOPER: Yes, sir.

That is Mark Hooper.

MR. YANTIS: Is Mark Wood still here?

MR. WOOD: Yes, sir.

MR. YANTIS: As soon as Mark Hooper speaks, will you speak? Then we will get back on the obsolete generation? (Laughter.)

MR. MARK HOOPER
UNIVERSITY OF HOUSTON
HOUSTON, TEXAS

MR. HOOPER: Mr. Chairman, conferees, ladies and gentlemen. Just for a little background information, I am a graduate of the United States Merchant Marine Academy at Kings Point, New York.

I have sailed as a deck and engineering officer on freighters, cargo ships, oil tankers, oceanographic research vessels, bulk oil carriers and offshore oil supply vessels. Presently, I am engaged in graduate engineering research at the University of Houston.

Throughout this conference, the various speakers have repeatedly emphasized the importance of the Houston Ship Channel-Galveston Bay area as a center of intense municipal and shoreside industrial activity.

An important point that these people have tended to overlook is the fact that the Houston Ship Channel, the Texas City Channel, and the Glaveston Channel are also navigable waterways that serve to convey a large number of foregin-flag and American-flag commercial watercraft to and from one of the major dry cargo and tanker terminal areas in the United States.

In 1969, approximately 2,300 passenger and dry cargo vessles, 1,200 cargo oil tankers, 9,100 tugboats and towboats, 8,100 dry cargo barges, 8,400 cargo oil barges, and undetermined numbers of Federal and recreational watercraft utilized the Houston Ship

Channel inbound towards the Port of Houston.[1]

In addition, approximately 7,600 vessels used the Texas City Channel inbound towards the Port of Texas City, whereas over 2,100 watercraft used the Galveston Channel inbound towards the Port of Galveston.[1] These figures do not include Federal and recreational watercraft.

The commercial, Federal and recreational watercraft operating upon the Houston Ship Channel, the Texas City Channel, and Galveston Channel constitute a very serious potential source of both sewage and oily waste discharges to the waterways and shellfish reefs in the Galveston Bay area. In 1969, over 23,000,000 short tons of petroleum products were shipped by oil tankers and oil barges from the Ports of Houston and Texas City.[1]

These cargo oil vessels arrived at the loading terminal areas with over 4,000,000 tons of oily ballast and tank cleaning wastewater on board.[2]

[1] Army Department, Corps of Engineers, Waterborne Commerce of the United States--Part 2, 1969.

[2] Hooper, M. W. and Myrick, H. N., "Mobile Marine Solid and Liquid Waste Processing Center," a paper presented at The First Texas Solid Waste Management Conference, May 1971.

On the other hand, most of the watercraft -- commercial as well as recreational -- operating in the Galveston Bay area practice over-the-side disposal of their sewage.[3]

The seriousness of this problem, as well as the inadequacies of present watercraft waste discharge management techniques, has prompted the University of Houston to initiate reserach in the development of a mobile, barge-oriented marine solid and liquid waste collecting and processing system that will collect, process, and reclaim both solid and liquid waste materials from Federal, recreational and foreign-flag commercial and American-flag commercial vessels operating in the Houston-Galveston area. This system would utilize both self-propelled and nonself-propelled oil barges to collect oily bilge, ballast and tank cleaning wastewaters from large watercraft while in anchorage areas and alongside piers or wharves. The collected oily wastes would be

[3] Hooper, M. W. and Myrick, H. N., "Evaluation of Solid and Liquid Waste Discharge Management Techniques for Commercial Watercraft," Proceeding of the 1971 Offshore Technology Conference, 1971.

transported to centrally located, barge-mounted treatment facilities where the oil component would be reclaimed. Solid wastes and sewage would be collected from large watercraft by barges equipped with loading hoppers, compactors, open and closed portable solid waste containers, and sewage holding tanks.

The solid wastes and sewage would be transported to docking facilities from which they would be transferred to incineration and/or sanitary landfill sites. Small watercraft, commercial as well as recreational, would discharge their solid wastes, oily wastes, and sewage wastes to barge receiving stations temporarily moored along frequently-used inland waterways. It is hoped that such a system will not only assist in reducing the wastes discharged to our navigable waterways but will also enable recreational and commercial watercraft to economically comply with both Federal and State watercraft waste discharge regulations and standards. I would also like to add that such a specialized system would also be available to fit in with contingency plans to handle emissions such as oil spills.

The people conducting this research --

which is also the youth of this Nation -- would like to encourage the Federal, State and local officials present at this conference to contribute not only their comments but also their assistance to develop such a system for the Galveston Bay area, as well as for the entire Gulf Coast.

I would like to add one additional comment. The motto of the United States Merchant Marine Academy was "acta non verba." I think that should apply to this conference. Thank you. (Applause.)

MR. YANTIS: Mark Wood. He lists himself as a resident of Seabrook. You are speaking for yourself?

MR. MARK WOOD
SEABROOK, TEXAS

MR. WOOD: Good afternoon.

Ladies and gentlemen, members of the press, members of the Texas Water Quality Board. I live down at the bay in the NASA area --

CHAIRMAN STEIN: Identify yourself by name and address, if you will at the beginning, please.

MR. WOOD: All right. I am Mark Wood.

I live down at the bay in the NASA area -- in Seabrook to be exact -- and we watch the ships come and go in the Ship Channel every day from our yard. The water by our pier and all up and down the coast has greatly deteriorated since my mother and father were first coming to the bay 20 to 25 years ago.

To me the bay and Ship Channel aren't statistics or an object of rivalry in politics. It's a part of our life and neighborhood. I just can't see the need for all the jurisdictional arguments in the conference. If a Soviet sub emerged tomorrow off Morgan's point, we wouldn't talk for days and use the tactics of the Texas Water Quality Board for our defense posture.

If we had the cholera epidemic they are faced with in India today, and it was rampant in some township in the Houston area, I'd hate to hear the same arguments and testimonies and disputes we've heard on the water cleanup issue.

The answer to who can clean up the mess and foul outpourings is "whoever can do the job." Increase Dr. Quebedeaux's budget tenfold and he can do a lot. Set fines or damages for polluters and enforce them effectively and they will send us part way home. Elect legislators who will treat air and water rights like a public trust. Find a homegrown Ralph Nader for the State water quality enforcement. If nobody will act locally quickly enough, or countywide, or on the State level -- bring in the EPA or whatever it takes.

We are all wandering this planet together. Let whoever will act boldly clean up the disgraceful Ship Channel.

I remember a TV program on Channel 8 a few years back when Hugh Yantis said that the channel isn't in bad shape and he wouldn't mind going swimming in the Ship Channel.

I suggest that someone be gracious enough to push him in! (Laughter.)

It won't solve all our pollution problems, but it would dissolve one of them. (Applause.)

MR. YANTIS: Some years ago, I made a speech to a conservation group -- some of whom are friends of mine and some of whom are not. As I opened my remarks, I said, "Now the biggest problem that you have is this," and I put a picture of myself up on the screen.

I do disagree with a lot of people, and I don't mind them knowing what I think. This is probably why Harold Scarlett over there (indicating) refers to me as "the controversial Executive Director," as I mentioned yesterday.

I also don't mind other people saying what they think. I think that is the way we get it all done.

CHAIRMAN STEIN: You know, I was going to reserve a remark, and Mr. Wood upstaged me. I was waiting until the 3 of you finished and was going to say you had the politest group of youngsters I have run up against in a long time. (Laughter.)

MR. YANTIS: Well, they don't know it, but I have the advantage on them; I have got practice. If you could see the kids that my kids run around with, these guys are conservatives. (Laughter.)

CHAIRMAN STEIN: I would like to say something while we are here if Mr. Hooper is still here.

MR. HOOPER: Yes, sir -- over here.

CHAIRMAN STEIN: By the way, I think they are all excellent statements and reflect a lot of thought. I see we are developing all kinds of youngsters in Texas, and I have never seen a Texas millionaire emerge yet as a young man. But I think you have an idea there, and you may want to get in touch -- if you are serious about that aid -- with Mr. Vanderhoof, or Mr. Kallus, the local representative, and present your plans to him.

MR. HOOPER: Yes, sir. Thank you very much.

CHAIRMAN STEIN: Right.

MR. YANTIS: As we introduce the next speaker -- to make it more and more obvious that it is the next generation that is going to be here -- I made some comments a few days ago to my staff and said something would probably be so and so in 10 years. They didn't think this was an extraordinary long length of time for the thing that I was talking about. And then he wanted to know something about what would I be doing then. I said, "Haven't you stopped to realize I will be 67 years old then and probably be gone?" Well, we will be gone and there will be some more coming, but we ain't gone yet.

Well, if I don't have my names backwards -- but I don't guess it will hurt anyone's feelings -- we have Mr. Victor Emmanuel for the Conservation Foundation. Then Shelby Bryan. Depending on how the clock looks, I have semi-promised Hannah Ginsberg time, and I still remember my promise to Jim Regland, and the Mayor of Seabrook. He may or may not be the uncle of the young man that just spoke. So, it looks like at least those 4 people. I hope it is just 4. We have 1 hour.

Victor Emmanuel?

MR. VICTOR EMMANUEL
CONSULTANT, CONSERVATION FOUNDATION
WASHINGTON, D. C.

MR. EMMANUEL: I am Victor Emmanuel, a consultant for the Conservation Foundation, the Director of Conservation Services.

Jim Smith was planning on giving the first statement which I am going to read. But he had to go back to Washington, so I will read his statement for him. It goes as follows:

MR. JAMES N. SMITH
DIRECTOR OF CONSERVATION SERVICES
CONSERVATION FOUNDATION
WASHINGTON, D. C.
(READ BY VICTOR EMMANUEL)

I am James N. Smith, Director of Conservation Services, for the Conservation Foundation, Washington, D. C. The Foundation is a nonprofit organization involved in developing broader public understanding of environmental problems.

As one part of our program, the Foundation has been engaged for some months in a study of the body of water which is the subject of this conference -- Galveston Bay and its estuarine area. Basically, our project is concerned with water pollution control in the bay. It is an analysis of the control process as it is performed by the several levels of government -- local, State and Federal -- which have a responsibility for management, control or protection of the bay and its environment.

Indebtedness to EPA for calling this conference. It has provided us with a quantity of data that would have taken hundreds of manhours of research for us to dig up. The only problem now is whose figures to use. We chose this approach and this particular locale for several reasons.

Foremost, we felt the bay would provide an excellent opportunity for assessment of a complex, cooperative pollution control process and a measurement of its effectiveness. We hope this study will provide some insights into the problems of the present Galveston Bay approach and perhaps into the limits of some commonly accepted assumptions of governmental cooperation in the environmental field. As I understand it, these are in many ways the concerns of this enforcement conference as well.

The study is still under way, so obviously it is too early to present any definitive conclusions. We have, however, progressed far enough to have some observations of the situation and circumstances which characterize the bay and its pollution problems -- especially as they relate to the activities of the State and Federal Government. I doubt that they will strike you as particularly novel, but they may help in your own deliberations. They are not intended as an indictment of any element of government or community life, but rather as a commentary on what appear to us to be some of the circumstances that have led to this enforcement proceeding. In this context perhaps we can make a useful contribution.

Over the years, Galveston Bay has been an enormous subsidizer of the economic growth and development phenomenon experienced in the Houston-Galveston area. As a conveyance for the commercial traffic plying the Ship Channel and as a cheap and convenient receptacle for the municipal and industrial wastes of this rapidly growing area, the bay has underwritten the costs of transportation and waste disposal.

Without this subsidy, the city of Houston and the entire industrial and commercial complex surrounding it would have developed at a far less dramatic pace. Houston has been the virtual apogee of a laissez-faire economy. And as a consequence enormous costs have been passed on to the bay in the way of environmental deterioration. I think it is no exaggeration to say that, at least until very recently, the bay and its estuarine area have been regarded as a

J. N. Smith

convenient and totally expendable resource by industry and government, and a subject of enormous indifference to most of the public.

Happily, this attitude of public environmental apathy has undergone some dramatic changes locally and nationally. As John Quarles pointed out, the whole game has shifted. We now find the general public alarmed with the apparent conditions of environmental deterioration and assertive in its demands for measures of control and abatement. And this, in turn, has placed the pollution control official at all levels of government in a dilemma. He now has to rationalize to this newly-concerned public why the control program has heretofore been so laggard while at the same time, take on a new posture of aggressive regulation and enforcement -- often without the budget or the manpower to do either, and with laws that were intentionally designed to make the control and enforcement process as cumbersome and extenuated as possible. With these circumstances and the political and economic pressure that results the entire process can quickly degenerate into an atmosphere of recrimination and distrust.

This is a quandary in which both State and Federal officials find themselves today and the context and atmosphere in which this enforcement conference seems to have been launched. But at any rate, progressing from here will be hard going, and will require the highest level of cooperation and good faith from every level of government if advances are to be made toward cleaning up Galveston Bay.

Up to this point neither the Federal Government nor the State have pursued their task of protecting and maintaining the quality of the bay with all the vigor and dedication that they might. The Federal Government, in fact, through the Army Corps of Engineers, has been a major influence in shaping and stimulating the growth of Houston and its associated industrial and commercial complex.

From the first dredging of the Houston Ship Channel back in the 1890's to its present operations on the lower reaches of the Trinity River, the Corps has had a constant and pervasive influence on the design of the area's development and the consequent deterioration of the bay's environment. Over 290 miles of channels have been dredged and are now operated and maintained by the Corps in and around the bay.

The history of the sequential widening and deepening of the Houston Ship Channel over the past 70 years, to accommodate new innovations in shipping and new demands of commerce and industry, shows the kind of influence one agency of the Federal Government has had in shaping the present industrial concentration along the upper reaches of the channel.

Most of this has come as direct Federal subsidy. Over $250 million of Federal funds have been directed to the area for construction, operation, and maintenance of navigation and flood-control projects -- the former to assist in the development of industry and commerce, and the latter to protect the homes and investments in flood-plain areas.

All of this takes its environmental toll on the bay. And more is in the works. One hundred thirty-five million dollars is authorized to be spent for navigation and flood-control projects in the 8-county area in and around the bay with plans -- as yet unauthorized -- for another $600 million in flood-control works in the next generation. The biggest portion of this would be spent for the construction of hurricane barriers and protective works which could change or radically alter the ecology of the bay.

Contrast this with the relatively meager level of Federal expenditure directed into the same for the purposes of water quality control. Only around $13 million in Federal funds has come to the 8-county area since 1957 for assistance in the construction of municipal sewage treatment facilities.

One can seriously question whether this expenditure has had much impact on the control or abatement of municipal pollution. There are, for example, 41 separate sewage treatment facilities within the city of Houston. Many of these were constructed for the express needs of land speculators and real estate developers. They were designed with minimal treatment capacity and with little or no reference to the overall growth patterns and wastewater treatment needs of the region. One Federal official remarked to one of our interviewers that the Federal grant program has amounted to little more than a "give-away" to unscrupulous land developers.

In addition, the State has or will receive a Federal grant of nearly $1/2 million to support a share of the costs of the State's Galveston Bay Study -- the need for which has been seriously questioned. It will not produce data on point source discharges, but is directed rather at a measurement of the bay's total assimilative capacity, an effort which strikes many of those who believe the bay is already too polluted as an exercise in sheer irrelevance. There is also concern among conservationists that this study and its protracted nature may be a device to further forestall enforcement of the Refuse Act or compliance with the water quality standards.

On the face of it, there seems some justification for this concern. Prior to the calling of this enforcement conference, action on the part of both Federal and State governments to enforce pollution control had been slight. Technically, most effluent dischargers in the Galveston Bay area are in violation of the 1899 Refuse Act. Admittedly, the potential of this statute as a pollution control device has been only recently unearthed. But the use that the Federal Government has made of it in the Galveston Bay area has been limited to prosecution against the more irregular and egregious discharges, rather than against the regular day-to-day discharges which probably cause far greater deterioration of the bay.

The other regular enforcement mechanism available to the Federal authorities -- the warning system, entailing issuance of 180-Day Notice to a party that it is in violation of the adopted water quality standards -- has not been used at all. There are, no doubt, some good practical reasons for this. It is a cumbersome process, hard to document and would in any case require the consent of the Governor before a suit could be brought against the alleged violator -- a consent which most agree would be hard to secure.

But, even with the knowledge that eventual prosecution is not likely, the 180-day warning can still be a useful tactic to focus public attention upon a violator, thereby possibly forcing compliance. It is curious then that the Federal Government has never chosen to exercise this gambit in the Galveston Bay area.

As for the State's enforcement effort,

only two cases of violation of standards have ever been brought to prosecution in the bay area. This is worth noting when one considers the weight of evidence collected by the Texas Water Quality Board's monitoring and sampling program, indicating a gross level of permit violation. I now realize from the testimony of Mr. Whittington on Tuesday that the State does not consider their standards as absolutes. But a look at the data available to the Water Quality Board, through its self-reporting system, for the period of August- September 1970, shows that of 400 waste discharge outlets in the area identified as being covered by permit, 174 (44 percent) were in violation of at least one of the permit requirements. In addition to those in violation of permits, a further 143 (35 percent) were either not reporting at all or were doing an inadequate job of it, according to the permit specifications.

The State has not chosen to enforce water quality standards. It has preferred instead to pursue a course of informal negotiation with violators in the hope of securing compliance through persuasion and coercion.

One problem with this is that much of this negotiation has had a back room atmosphere about it, giving rise to assertions that there was more collusion than coercion in the informal procedure. Until quite recently, the public was effectively excluded from this informal enforcement process, and data and information were hard to come by. Since March of 1970, however, this has been greatly improved when the board began opening its meetings to the public during consideration of permit violations.

Other improvements would seem to be in order too. Certainly, the self-reporting system has some serious limitations, particularly when one considers that in the data sample referred to above 130 permitees were not reporting discharges at all. Of those who did report and were in violation only 67 percent were inspected by the Texas Water Quality Board staff.

Development of other monitoring methods and an increase in its inspection force could put the board in a more favorable position to take enforcement action. Perhaps the added public attention generated by this enforcement conference will help to secure the additional funding needed to carry out a more concerted enforcement program. If it accomplishes only this the conference will have been worthwhile.

There can be other benefits from this conference too. It can provide an effective clearing of the air for the allegations and counter-allegations which surround the question of jurisdictional responsibility and control between the several levels of government. And it can provide a climate conducive to a more cooperative and direct approach on the part of each authority toward what should be a common objective -- the abatement and control of pollution in the waters of Galveston Bay.

But what is really at issue in this conference is not the question of who has failed at the job; the real issue is whether or not the cooperative control process can be made to work in a way that will provide the public with the kind of environmental quality it now seems to demand. A supposition of our modern system of federalism is that the various levels of government can and do interact to accomplish the public will and protect the commonwealth. The outcome of this conference will test that supposition.

What should emerge from these several days of conference is a clear strategy on how we can move cooperatively from where we are now to where we all would like to end up -- with a clean bay.

That is the end of Mr. Smith's statement for the Conservation Foundation. Now I have some comments of my own I would like to make.

The first thing I would like to do is to present to you a little background on the Houston sewage problem in Houston, which I think is interesting in light of some of the controversy concerning a Federal presence in the pollution control efforts here.

There has been evidence by some people, particularly State officials, toward Federal intervention in the pollution fight.

I would like to quote from a book, "Houston, the Bayou City," by David Machem. It is a dissertation and was published by the University of Texas Press last year, I believe.

The purpose of this quote is to point out to you how longstanding the role of the Federal Government has been and why we welcome the Federal

V. Emmanuel

Government participation in this area.

First of all, one of the things this book points out is that the Buffalo Bayou at one time served as a source of drinking water for the city of Houston. This may come as quite a surprise to many of the people, given the current status of the bayou and the state it has been in so long.

The first water system for Houston was not constructed by the city of Houston, but was constructed by a private waterworks company which agreed to supply water to the city.

Interestingly enough, the waterworks company was shortly thereafter headed up by a former mayor of the city.

The waterworks company attempted to supply its obligation to the city by building a dam on Buffalo Bayou and supplying the water from that source -- from a lake on Buffalo Bayou to the city of Houston. Some complaints arose about the water.

But this article appeared in the Houston Post in 1887. It may give you some idea about the quality of the water in the bayou in 1887.

"A great many people think that the water furnished by the waterworks is unfit for drinking or culinary purposes, but in that, they are greatly mistaken. The supply is obtained from a portion of the bayou, which is pregnant with springs, and the water is free from all impurities and is pure and wholesome to drink. Of course, after heavy rains the banks of the bayou wash into the stream, and the water is discolored slightly. But, even then, it is good and much better than the Mississippi River water, especially at St. Louis where the river is muddy and dirty."

That was in 1887. However, as the city grew in the next few years, sewage started to flow into the bayou. But the water continued to be used for the drinking supply for the city.

In 1893, people complained that tap water was no better than bayou water -- than drinking it right out of the bayou. Fish died in the bayou as a result of creosote poisoning. Tar water flowed from the pipe.

Physicians noted a rise in bile trouble and even Scanlon's wife -- that was the wife of the president of the waterworks company -- complained about the water. The president of the company promised that wells would be dug to supply the city.

You see, by this time, it had been discovered Houston was sitting on one of the largest aquifers in the world, and we could get our water from groundwater rather than rely on the bayou.

This opened up a source of clean water rather than the bayou which had become polluted.

The waterworks company had built the pipes and had the dam, and it would have been expensive to convert to wells as opposed to using the bayou water. So they continued to use the bayou water. The difficulty persisted.

The Houston Cotton Exchange -- referring to the bayou as an immense cesspool, reeking with filth, emitting a stench of vile character -- asked the city council to halt pollution. That was in 1893.

The city engineer asserted that solids from toilets appeared in the bayou, and a reporter -- the press was active then in noting pollution -- a reporter noted a sewer outlet dumping 40,000 gallons daily from the Houston and Texas Central shops into

V. Emmanuel

the stream. That was a railroad shop above the waterworks dam. Above the dam they were dumping 40,000 gallons a day of untreated sewage into the bayou.

In 1895, when the Houston District Medical Association warned that the products of the waterworks were the cause of much illness in town, President Scanlan retorted the smell came from tar in new mains, and that Houston tapwater was better than Mississippi River water, and that his company had no obligation to provide well water.

The medical group countered with an investigation that revealed a dozen privies, a smallpox graveyard, a dead cow, an oil mill, and cattle yards as sources of pollution above the dam.

Another investigation the same year disclosed cattle from the Southern Oil Mill Stockyards were in the water, and more dead cows in a state of putrification were in the drain leading from the mill to the bayou and were covered with a light scummy substance which emitted an almost unbearable stench.

It is our opinion the investigation

concluded that the use of this water was a menace to the lives of the people of this community.

Following that report, the city council renewed the contract with the water company, allowing the use of bayou water for 6 more years.

Now here is how corrective action finally came about. It was not from these local reports about the pollution which was going into our water sources.

At the turn of the century the United States Government, however, did promptly move to halt pollution.

Major A. M. Miller, while inspecting the potential Ship Channel in 1895, pointed out to civic leaders the Government had no intention of cleaning Houston sewage out of the bayou, but the city had better clean up the mess if it desired any Federal aid. So we had a Federal threat that they would cut off Federal aid in 1895 and would not help us unless we cleaned up.

In response to that threat, after confirmation of the threat, the city accepted the plan of Al Potts, a consulting engineer, for $250,000 sewage system and approved a $300,000 bond issue to finance the project. The sewage system was built and was one of the most advanced in the world.

The filtration method and cycle would cost $280,000 and was opened a few years later. And one of the visitors suggested it should be bottled -- the effluent should be bottled -- and Potts demonstrated his conviction by gladly drinking some of the treated water emerging from the sewage plant. He declared it quite palatable. No one could be induced to taste it. The new system satisfied the Army Engineers working on the bayou, but unfortunately, this bold effort to eliminate pollution was useless.

The city abused and neglected this installation, and in 3 years, the mayor, in touring the facilities, found the filters processed only half the sewage and that the sand beds were clogged 4 to 5 feet deep in water, and one of the coke beds was not used at all because it leaked into a keeper's house.

Part of the system had become a lake complete with waterbirds, snakes, and a family of alligators at the spot where Potts had run some of the effluents.

V. Emmanuel

The mayor noted the stinking atmosphere and commented, "I do not know how the water looked when Potts drank it, but I relinquish any claim I have to any portion to Mr. Potts or anyone else who desires it."

The Houston Post noted 35 private sewers draining into the stream, etc. The system continued to be clogged, and water removal was still being used. We still did not have wells to supply the city.

An experiment with filters failed. They tried to filter the bayou water to continue using it for drinking water.

A. L. Metz from Tulane Medical Department found insect wings and fragments of feathers in filtered bayou water. He claimed a safe bacterial level at 500 per cubic cm., but the Houston sample count is 151,606 per cubic cm.

After this, the city bought the waterworks, and finally did install a well system. The installation of a well system guaranteed the city pure drinking water. That is, assuming the cyanide wells don't contaminate the drinking water.

But by not relying on the bayou for drinking water, we were free to pollute the bayou with an increasing amount of sewage.

This background gives you some reason why we welcome you. I want to add my voice to those who say they hope the Feds will take an active role here.

I would like to make a few brief comments about the conference itself and about the inadequate notice to the public.

I realize there is some limitation to when you could have meeting times. I wish you could change that. I think you should seek to have some meetings at least at night where more citizens can attend. I think some of the meetings should be held in the channel area itself and not all of them downtown.

CHAIRMAN STEIN: The way it looks, you are going to have your wish. Just keep on. (Laughter.)

MR. EMMANUEL: All right. I have been disappointed in the lack of adequate rebuttal by the Federal officials on evidence which has been presented by the State. I don't know whether they can accept the State's criticism of their report.

It would have aided in the conference, if, when conflicting testimony was presented, there was a rebuttal that would have been presented. And it was noted in one of the newspapers that in the testimony of the Federal report it states there are 383,000 pounds of BOD substances going into the channel every day, while the State says 200,000 -- a difference of almost 1/2.

We would like to have that point cleared up, in addition to many other points which were conflicting.

Now I would like to briefly comment on why we are not impressed with the State's case as presented at this pollution conference. They may be doing a good job in the sense that we do accept they are making an effort to clean up pollution, but we don't think they are doing nearly enough, and we think their philosophical attitude is what is at issue here.

The comment has been made about Mr. Fulcher's comment, because of the fact he can't clear up the channel because industry will leave. I think the attitude of defensiveness of the State opens it up to being suspect. If they are doing such a good job, why are they so defensive about the EPA coming in here and checking?

The relations of the State with Dr. Quebedeaux and with their own State attorney general are no better than the State's relations with the EPA, which leads me to some question as to the State's own program.

I was also alarmed at Mr. Whittington's comments, which I think is sympathetic with the State's attitude, in which he said we should not always look toward higher levels of treatment, but should consider the diversion of some of this waste to other areas -- perhaps to the Gulf of Mexico, perhaps to other parts of the bay. He did not elaborate but this disturbs us greatly.

Instead of cleaning up the waste we would move it over to some other area is what it implied to me.

Mr. Yantis' remarks about the competition of ideas is interesting to me. I think the competition of ideas is a fine thing, but we should keep in mind these are laws we are dealing with; these are not matters in which you debate and decide whether, given the existing political climate or who happens to be governor, but how much effort should be made.

My understanding is the law should be enforced at all times to the letter of the law. In this I agree 100 percent with Dr. Quebedeaux.

One point that has disturbed me is about the petty criticism of some speakers, particularly witnesses of the Federal Government, who have been subjected to petty criticism on irrelevant points.

At one point, I think it was Mr. Stein who referred to Buffalo Bayou as a river, and there was considerable laughter at this point. It really doesn't make any difference whether you call it a river, a bayou or a stream. It is grossly polluted.

CHAIRMAN STEIN: I was thinking of the Buffalo River. It was a Freudian slip, not a mistake.

MR. EMMANUEL: It doesn't matter to me. These points at which the people pick up testimony of outside witnesses and discredit them on minor points is not important.

I was impressed with Dr. Tarzwell's testimony, but at the point where he was talking about crabs and shrimp and the larvae of these creatures that might be damaged by the Houston Lighting & Power facility, he included along with crabs and shrimp, lobsters. And, fortunately, he mentioned that lobsters were not found in Galveston Bay, because if he hadn't mentioned that, I am afraid his testimony might have been disregarded by the State.

If he included lobsters in his remarks -- he fortunately mentioned lobsters were not found, so his testimony was not discredited.

The reason we are not impressed with the State's action in this area to preserve the environment is what other speakers have mentioned -- that history of State involvement has not been the protection of the environment, but the destruction of the environment.

I won't go over the things again but just merely mention the shell dredging which has destroyed a lot of our bay and that Congressman Eckhardt was finally able to drive the dredgers out of the bay. But the State was going fully along in permitting them to destroy the shell reefs which were irreplaceable.

The Railroad Commission for years permitted people to discharge oil field brines into freshwater streams with no regulation whatsoever. The Railroad Commission is very lax in enforcing any action of people who commit oil spills.

The stock scandal in Austin has lowered public confidence in State government, and all of this contributes to the reason we are very suspicious of the State's intention in this area.

What bothers us seems to be in this State we have law and order at a very --- For some Mexican-American farmworker who might be picketing in the Valley, law and order swoops down on him because he might be violating some court order, in terms of the distance that he might be allowed and the number of pickets. But there is not law and order for some of the corporations that pollute the atmosphere and pollute the waters.

Now one of the points that I would like to make briefly that I think substantiates this about the lack of enforcement is what the State goes through when it does attempt to bring in enforcement proceedings.

I will go over this in summary. It is

discussed in detail in the June 1970, Texas Law Review.

CHAIRMAN STEIN: Before you start that, you know I just recalled, when I mentioned the Buffalo River, I did mean the Buffalo River. I was comparing the work on the industrial waste discharges on the Houston Ship Channel with other rivers.

MR. EMMANUEL: I was referring to the point where you said at the end of one day. "I didn't realize we were talking about the same river after listening to the State's presentation." And in this case, you mentioned the Houston Ship Channel, and there were some people in the audience who took exception.

CHAIRMAN STEIN: You are right there.

MR. EMMANUEL: My point is that it doesn't make any difference. It is filthy.

Here is the State enforcement proceedings as outlined in this Law Review.

First, there is a report of a violation by a field agent. That only occurs when a field agent might be checking that particular industry and they have a report of a violation.

That report is sent in after the sampling. We don't know how often these samples are taken. We would like to know how often these samples are taken of a particular industry.

Now once this report is received, a letter is sent to the violator telling him that he has been reported in violation and asking him what is he going to do about it.

Then after a period of time he replies. Then there is further correspondence between the State agency and the violator concerning this effort.

Now this correspondence continues as long as the State agency feels the violator is operating in good faith. I don't know what that means -- but as long as they feel that he is making a good-faith effort to work this matter out.

Now further communication proceeds if followups show there is continuing violation. Now if there is continuing violation, a staff meeting is called, and the violation is brought before the staff for a face-to-face meeting to talk about this violation. Now if this staff meeting results in a good-faith effort or good-faith agreement by the violator that they will correct this, then he is let off scot free, and he gets to go back and make his effort to clean this up.

Now if, however, he is intransigent at this staff meeting, then he is called before a monthly meeting of the board, at which he confronts the full Water Quality Board, and they discuss the problem with him. Now if before this board he demonstrates a good-faith effort to clean up his pollution, he is allowed to go back.

However, if before the board he is intransigent, they will then -- they may decide, this is not mandatory, to have a formal hearing on whether or not they should do something. (Laughter.)

Now if as a result of this board hearing they feel that he is not going to clean up his discharge, they issue a board order that the violator is to cease discharging in violation of his permit.

Now after this formal board order -- this formal board order constitutes the end of the board's action -- then the matter is referred to the attorney general.

Once the matter is referred to the attorney general, the attorney general requests the complete file on the proceedings, plus something which is called the "standing operating procedure" (SOP).

According to the article in the Law Review, this file furnished by the Water Quality Board often is deficient. So the attorney general has to engage in several weeks or months of correspondence with the Water Quality Board to get a complete file so he can proceed. Once he gets the complete file, then he writes a Demand Letter to the violator.

Now a Demand Letter is a formal legal letter asking the violator to cease and desist, or they are going to court.

If in response to the Demand Letter he does not get satisfaction, he goes into court and seeks a temporary restraining order to halt the discharge. This is usually not granted by the court because the court is loathe to grant the temporary restraining order.

However, he does finally go into court, and if he finds very luckily the court will grant an injunction, the injunction is granted only on the condition that it will not apply for 90 days. So after you have gone through all this process and you finally get the injunction, the injunction is an injunction which only goes into effect 90 days after it is granted. So this is the State's enforcement process, and we think it is too long and cumbersome.

The final thing I want to mention is some brief comments about the Houston Lighting & Power case, because of its great concern to me.

The man from Houston Lighting & Power was concerned about the rich Brazos River bottom land, which is the richest in the world, and we must not build a plant there because of this rich land.

I would like to submit that this rich land, which is used by the way to grow subsidized cotton, which the Government buys because we have too much cotton -- there is some question in my mind as to how valuable this land is. And it is nothing as compared to the estuary or the marshes that might be destroyed by this plant.

Data presented by the Houston Lighting & Power Company, which was done by Texas A & M under contract with the Houston Lighting & Power Company -- people are naturally suspicious of this type of data --

these people might have done it with the best of intentions, but questions were raised by Dr. Tarzwell about the method they used.

My suggestion is, in the case of industries that do this, they get a nationally-recognized independent group to do this, such as the Woods Hole Oceanographic Laboratory -- to do this testing so there will be more credibility about their data.

They mentioned we shouldn't be concerned about the polluted water going through their facilities because they would have detection procedures, and if they found the water coming into the Houston Lighting & Power facility to cool their towers was polluted, they would contact the Texas Water Quality Board and ask them to take care of it.

I have just described what that involves. (Laughter.)

Now if this polluted water is coming through there, it is a question in my mind about how rapidly that would be cleaned up, and in the meantime it would be going in the bay.

Now no one has raised in regard to the Houston Lighting & Power Company some of the basic questions that I think need to be raised.

One of the questions is why do we need so much electricity? We cannot proceed on the assumption of 1) the population growth that some people think that we need, and 2) the amount of electricity we need. And one of the questions I want to raise is not only the industry printed mailing which was given to you by an earlier speaker telling the advantages of their plans and how beneficial it will be to the bay -- which, by the way, raises in my mind a question.

All of these industries have been telling us how much the bay is helped by their pollution. I wonder how the bay existed in its natural state before we had all of these people to benefit the bay. (Applause.) But nonetheless, it raises a question in my mind, what about the industry ads to promote the additional use of electricity?

These ads are subsidized by the taxpayers because in figuring their rates, they put in their advertising costs. So they are fending on themselves, so to speak.

I think we should have legal, equal time, and the industry should be required to pay for every ad they put on urging us to use more electricity. We should have a companion ad urging people to use less electricity in terms of electric doors for the garage and electric knives.

I saw an ad for an electric paper towel dispenser so you would not have to tear the paper towel off the rack. It also can be used for wax paper and for aliminum foil. It will cut it for you. Now this is part of the increase in the cost of electricity.

However, it was mentioned by one of the people from Houston Lighting & Power that one of the reasons that we need cooling by water is because we have such a huge plant -- 750,000 kilowatts for one of the units -- and if you have smaller plants, you can use air cooling which evidently will not cost as much. But the problem is the larger plants produce power at cheaper rates.

Now my question is, is it better to have cheaper power, or is it better to destroy the bay or impair the bay? It might be better that we have slightly higher power bills than have a cheaper process in larger plants.

V. Emmanuel

I would also like to mention, concerning Houston Lighting & Power, that this company was cited by the Metcalf Committee as one of the most profitable in the United States, and one with the highest rate of return on its investments.

It seems to me like they could afford to be more imaginative than the way they produce power in this area.

I was alarmed by their comment that they plan many more of these facilities around the bay or in the general area.

My question is, where will it stop? They are using 25 percent of the area of the bay just for the one plant, for the mixing area.

CHAIRMAN STEIN: Let me give you a factual point on that. This isn't unique here. But in the New York area, the big plant as you might know is Consolidated Edison. The Chairman of the Board for that company now I guess is Charles Luce, who is a former boss of mine. He was Under Secretary of the U. S. Department of the Interior.

They indicated that they increased the sale of electrically-connected devices, such as you are talking about, by 35 percent with that advertising. But because of the problem that they had in dealing with the environment -- and this is air and water in the New York area -- they have announced that they have stopped advertising and promoting the buying of additional electrical applicances in their campaign to save electricity.

MR. EMMANUEL: Has Houston Lighting & Power done that also?

CHAIRMAN STEIN: I don't know.

MR. EMMANUEL: Would the EPA consider making that a recommendation?

CHAIRMAN STEIN: The other point that I wish to make is that, while a lot of the comments you make here may indeed be appropriate, I am not sure we can suggest regulating the power industry advertising or any other industry or any other business. If we take the question of power needs, I think we would have to look into the needs of a steel company or a petroleum company. It seems to me that this might be overstepping our statutory function.

It is precisely because you cannot put too much power in the hands of any bureaucrat, whoever he is and however good his intentions, that our function should be limited to the control of water pollution and water quality.

MR. EMMANUEL: It is all related.

CHAIRMAN STEIN: I know it is maybe interrelated. Also the question is whether one man should do this.

The question of the determination of whether someone should go into a business to put in electrical power is somewhere else. I think properly so because there should be someone who makes that kind of judgment just on the good government principle of not placing all that kind of authority in the hands of any single party -- however enlightened we may think we are.

MR. EMMANUEL: Are you aware in Texas we don't have a Public Unitilies Commission to regulate these people?

CHAIRMAN STEIN: Again I say to you if that isn't the forum, then the forum may be the Congress or your State Legislature. There is always a forum for this.

You made a very good statement.

Again the point is, and I ask a lot of you who are here to do this, we have to draw the line if we are really going to get on with what I think is the very complicated job of protecting the waters of Galveston Bay. If there is pollution, assert where it is coming from and stop it.

If we get enticed on the very attractive vistas you put out about changing the whole body of politics -- well, we have enough trouble doing our own job. This is generally the point I wanted to make. This is not to make any judgment on the validity or nonvalidity of what you say.

MR. EMMANUEL: There is one point involving the project not brought out that I want the EPA to consider in their deliberations on this.

That is that this cooling pond which they propose to build, which they say will be a nursery, will destroy a very fine marsh -- not merely a breeding ground for shrimp but ducks and wildlife. Our marshes are rapidly being destroyed. They could build it on land used for raising cattle.

You may think it is better to run a cow on a 4-acre pond than it is to have a marsh, but my basis for this was in favor of saving the marsh. I realize the marsh was privately owned. I am still upset about using marshes for the cooling tower.

There is one point about the attitude of the people in this area toward the environment. If there is any doubt in your minds of concern of people in this area concerning the environment, we have a State Representative who spoke to you in your first meeting, Representative Rex Braun. He is one of the leading fighters for environmental control. He has been a constant critic of our State agencies. And he has introduced a bill to provide, as in Michigan, that the environment be declared a public trust so any citizen can bring a suit if they feel that any State or local agency is not doing its job, or to enforce an action against people who are polluting the environment.

I support this legislation and I think that the fact that Representative Braun has been reelected from this area 3 times without opposition -- the only State Representative from our area who has such a record -- attests to the popularity of Representative Braun. And I think, in large measure, his popularity is due to the fact that he has been a cursader for cleaning up the environment. So, I think that speaks for the concern of the people of Houston about the environment.

My final comment that I want to leave you with is that environmental losses are often irreparable losses. And I would like for you to bear in mind a comment that was quoted in the New York Times that a Seminole Indian chief made about the Everglades, which would apply to Galveston Bay just as well. He said about the Everglades, "You can't buy it; you can't buy it; you can't make it; and once it's gone it's gone forever." (Applause.)

MR. YANTIS: Thank you, Mr. Emmanuel.

We have approximately 15 minutes. I had hoped to have more. We may run over just a little bit.

I made a list but it has to be changed again. Mayor Sullivan, how long did you expect to speak?

MR. SULLIVAN: About 5 minutes.

MR. YANTIS: Captain Regland, how about you? And Shelby Bryan, how about you?

MR. BRYAN: About 10 minutes.

MR. YANTIS: Let's do it in this order then: Mayor Larry Sullivan of Seabrook, Captain Jim Regland of Regal Seafood, and then Shelby Bryan.

And I am very sorry about those who are still on the list, but that is all there is. I don't think we can go beyond that.

CHAIRMAN STEIN: Right. Let me ask if we reconvene tomorrow, would the other people who want to make presentations appear?

VOICE: I would.

2d VOICE: Is there a way we can get a schedule as to when we can speak tomorrow?

CHAIRMAN STEIN: The reason I asked that question is that I like to be as economical as I can with Government funds, and I don't like to schedule a meeting if we are not going to have any appearances. But as long as we are going to have appearances, we will meet here tomorrow morning and continue with this.

Will you go ahead, sir?

MR. YANTIS: Then, Mayor Larry Sullivan of Seabrook.

Following him, Jim Regland, and following him, whoever it was I said -- Shelby Bryan.

THE HONORABLE LARRY SULLIVAN
MAYOR, CITY OF SEABROOK
SEABROOK, TEXAS

MR. SULLIVAN: Thank you very much.

Gentlemen, my name is Larry Sullivan. I am the Mayor of the city of Seabrook.

Mr. Yantis, I guess I will have to be included in that obsolete generation you mentioned awhile ago. I am over 30. Not much but I am over 30.

I wish to address myself primarily to one facet in the EPA report concerning the pollution of Galveston Bay.

I do know you gentlemen are very tired. You have listened to a lot of people. I will try to keep my remarks economical.

Seabrook is a fairly small town situated on the shores of Galveston Bay near the conjunction of the Clear Lake Channel with the Galveston Bay.

We have quite a large fishing community in our city. We also are all very concerned about the environment in our area. I think almost everyone is.

But one thing I think is apparent also to us. We hear a good deal from all quarters about this, and that is the way to handle the pollution problem, or this other method is the way to handle it.

I think we all should realize that there is no one group of people, or one individual especially that has any monopoly on the right way to handle the situation.

For example, in the city of Seabrook we are very proud of the fact that we happen to be in that 8 percent of permit holders that are in complete compliance with our permit standards. Of 277 permitees whose effluents go into Galveston Bay, we are one of the 22 that are in full compliance.

But the fact that I really want to address myself to is Recommendation No. 1, which states as follows: "Due to concentrations of oil and hydrocarbon residues in oysters taken from approved areas in Galveston Bay, the Texas State Department of Health, in cooperation with the Food and Drug Administration, ascertain the extent of health hazards incurred, and, if warranted, recommend closure of Galveston Bay to shellfish harvesting."

I think that is a very good recommendation, and I would like to emphasize the words "if warranted."

However, the last sentence in this recommendation disturbs me more than a little, which reads as follows: "Consideration be given to prohibition of all commercial fishing in Galveston Bay until it has been ascertained that marine species taken from the bay are suitable for human consumption."

This bothers me in that there is consideration, being even considered, of halting this industry just on the chance that there might be something there.

I think we all realize that some of the marine species are being -- the products are being degraded by pollution in the bay. But the thing that I really want to drive home here is that the city of Seabrook has a sizeable fleet, and I think on the entire Galveston Bay this would, in fact, impact the city of Seabrook's per capita more than any other city. And if it is absolutely necessary to protect the consumer, and it is proven beyond a shadow of a doubt that it is absolutely necessary to prohibit all commercial fishing in the bay, then I say "Let's do it." But, gentlemen, I would like to stress with as much certainty as I possibly can that we need to make very sure, because we are not playing games. We all know that. We are influencing people's lives directly -- people whose only means of livelihood is the marine species in the bay. And unless we are quite sure that it is warranted, let's look at it a very long time.

Thank you very much. (Applause.)

CHAIRMAN STEIN: Mr. Jim Regland.

MR. JIM REGLAND

REGAL SEAFOOD

SEABROOK, TEXAS

MR. REGLAND: My name is Jim Regland from the city of Seabrook. I am a commercial fisherman.

Mr. Chairman and other conferees, ladies and gentlemen, I think we are all missing a point.

For 5 days I have sat here and I have listened to many, many, many statements made in this room by many people -- very able and very learned people.

I was asked the first morning, the first sentence almost, to wait and evaluate the statements of each and every individual here before passing judgment.

However, on the first page of this document that we were handed, it says, "... there is reason to believe that substantial economic injury results from the inability to market shellfish or shellfish products in interstate commerce because of pollution of such waters, and because of action of Federal, State or local authorities."

I don't know where that information came from. It was I think very graphically proven here by all the State authorities, regulatory to the harvesting and producing of oysters in the quantity and quality of oysters produced in Galveston Bay.

It was further graphically proven by the Federal Food and Drug Administration that the overall purity of the oysters was 95 percent pure. If I am in error on this, someone please correct me.

Let me tell you something about what we are talking about in the shellfish or seafood industry. Maybe many, many people sitting in this room do not know what constitutes the seafood industry in the world.

Farming is your No. 1 industry, and in

the seafood industry it is second only to that, and all others fall below.

You have in the Galveston Bay 1,568 boats that are full-time commercial fishers, and by this I do not mean Gulf fishers; I am talking primarily and specifically about Galveston Bay fishers.

We catch some 12,000,000 pounds of shrimp in that bay during our shrimp season. We also produce some $6,692,000 in oyster products out of Galveston Bay. We know during the oyster season you can almost at times walk from one boat to another. They work that close in the approved areas.

I started harvesting oysters in Galveston Bay 9 years ago. At that time, I did notice what I considered a rather foul odor.

But I am going to say that there has been a marked decrease in this, and I think that the record would be substantiated by the overall gross product that has been produced out of the bay. And this I do not mean by an added number of boats that are now working the bays in comparison to 9 years ago, because it was 9 years ago that you had the greatest movement of out-of-State boats into the bay. You had a little over 500 oyster boats from the State of Louisiana alone in the Galveston Bay area at that time.

I think that of all the other people who have been here, I don't recall a one except the Mayor of Seabrook that ever gave any consideration or placed true value on the shellfish food, shrimp and crabs. And incidentally, lady, when you said, "Would they eat the oysters and the shrimp and the crabs out of Galveston Bay," let me, for the record, tell you this: The people involved in this conference last evening ate 20 dozen boiled and steamed crabs; they ate an additional 10 dozen barbequed crabs; they ate 100 pounds of the big jumbo boiled shrimp, and I will tell you this, they ate 20 pounds of prepared potato salad; they went through 5 jars of pickles, 8 loaves of bread. I don't know. Look at them. Now they may be dead from eating all of this contamination.

Oh yes! Let me add, by the way. I forgot one very important thing -- 5 bushels of these polluted oysters on the half shell. (Laughter.)

Now these oysters, 4 weeks ago, were in what we call or what is termed as polluted areas. But by the process of reclaiming the oysters from a polluted area and putting it over into an approved area, on a private lease I might add, this oyster then is let alone for 3 weeks and is then reharvested, and upon examination is considered fine for human consumption.

Still, I will admit, no one is dead yet. I fished those waters 295 days out of 365.

I weigh 255 pounds and I eat seafood out of this bay once every day for 9 years, and if I am dead, I don't know it. So they won't bury me. (Laughter.)

But these are only relative facts.

They say that the State officials haven't done anything. Gentlemen, let me tell you I have lived with these people, and I live with them everyday. They are continuously sampling the bay waters. Now they may not do it the way you like it, but they do a beautiful job, and many times they are out there sampling that water when even 75 percent of the commercial boats are still tied to the dock. So, I don't think this is really shirking their duties.

They have good equipment. They are conscientious. They tell us as to what state the bay is in at all times. They provide us with data as to the growth of the shrimp, also as to the growth of the oysters.

We are not saying that they are all perfect, but the State Health people, whenever they come by during oyster season, they are going to be at your beck and call. And if you don't want to call them, don't worry. Look up. They are there. They come by once a week, and many times more often than this. They collect samples from that strainer many times. A couple of times a week.

I don't know what they are going to do with all that many samples, but they take it, nevertheless.

Also, you will have the County Health Department who comes by. Further then you have the Federal Health Department that comes by. They sample the temperature of that oyster with a thermometer, and believe you me, it had better be in the required degrees of refrigeration.

When I got my certification number, the State Health Department said, "You have it now and it is up to you just how long you keep it."

Now they don't mince words with it. If

they come in and you are not complying, they close you down, and that is as it should be because I eat this food. I work it and who would better know the quality of it than those who do use it.

If it was polluted and I thought it was polluted, I wouldn't eat it nor would I sell it.

If it was polluted, I wouldn't be permitted to sell it because we are that close to supervision -- closely supervised by the State Health Department.

The Game, Parks and Wildlife Department are constantly under surveillance as to where the boats are fishing.

Then, the violators: If you fish in any polluted area, the fine is $250 per person plus as high as $500 per boat. If you have a violation twice, they suspend your license.

Now I think you gentlemen and I think that everyone in this room should realize that we are in a true democratic process here. There has been a lot of pros and cons and a lot of variances as to agreement as to the way it is done.

I think Mr. Gallagher and his staff and Mr.

Yantis and the Chairman of the Board have sat here truthfully and fairly. They have their executive meetings and I feel and trust and know in confidence they will recommend all considerations, and if it is in the best interest of health, I would be the first to say, "Close it down."

And I thank you. (Applause.)

CHAIRMAN STEIN: Mr. Regland and Mayor Sullivan, I think you both made very good statements.

But again, let me try to indicate what I think the conference is about.

I think the statements of the Mayor are very well taken. But there are two points here. One is that shellfish beds are, in fact, closed, and the shellfish beds ostensibly, when they are closed -- I won't say "ostensibly," I make no judgment on that -- the shellfish beds are closed because of pollution, let's say from man-made sources.

When the report talks in terms of economic damage and the jurisdiction of the Federal Government applies, that is presumably what that part of the report is directed to.

There is another point there which was made in the report for further consideration, and just throwing it out on the table, it concerns the fact of whether the ban should be extended to other areas.

And I would say, Mayor Sullivan, that your remarks on that second point are certainly well taken, at least by me. But I think the point that Mr. Regland meant -- and I think this is important for all the people here to understand, because we have these 2 -- the fact that there are shellfish areas closed means that on a trace -- and I wouldn't say prima facie -- where we have a report indicating it, we go in. Now just to indicate what is happening in the entire country, the EPA has a program where it is analyzing every closed shellfish area in the country. Again I might say by "shellfish" in this sense I mean bivalves, i. e., clams and oysters, or animals that are eaten digestive tract and all. Really for all intents and purposes we are analyzing all closed areas in the country.

Now generally speaking, maybe the facts are different. But years ago, when I worked in the Public Health Service, we used to check the shrimp and the crabs when they came in the processing plant, and their flesh essentially had no bacteria in them from the water. If there was any contamination, it was due to improper handling.

That is what, in a sense, we are talking about when we talk about shellfish under the basic jurisdiction with which we are concerned.

We are busy looking at every closed shellfish area in the country, and the question they are asking in Washington is, "If an area is closed, if any pollution is causing that, can you go out and abate that pollution so these areas can be opened?"

That is the essential inquiry we are directed to here. I hope the people of Seabrook -- and I know they are wonderful people and they will understand this -- know that is what we are trying to do.

And, of course, as we get into this area and know there are other aspects raised by our investigators, we are looking and will explore these. But the essential jurisdiction leads to that, and not to the other issues.

I think that really must be understood if we are going to communicate back and forth on this issue.

MR. REGLAND: Thank you.

CHAIRMAN STEIN: Thank you.

MR. YANTIS: Mr. Shelby Bryan. We will close with you. This is the last one, and he said it will take about 10 minutes.

MR. SHELBY BRYAN
HOUSTON, TEXAS

MR. BRYAN: My name is Shelby Bryan. For the last 6 months, I have been working as a lawyer for Ralph Nader in Washington.

Mr. Yantis, I appreciate your letting me speak today. The way the conference was moving along, I thought I would be speaking sometime in August at Kelley's Oyster Bar. (Laughter.)

I grew up in this area and used to consider it one of the most desirable residential and recreational areas in the State if not the entire country.

Unfortunately, in spite of TWQB's and industry statements to the contrary, the bay area has become unforgivingly if not irretrievably polluted.

We have been told by both the Texas Water Quality Board and their industrial cohorts that if there is any problem at all, it is minimal and is being attended to. Such, unfortunately, could not be further from the truth. Of course, the citizens of this area will not be hoodwinked into believing that the channel is anything less than a deplorably polluted body of water.

No rhetoric can hide the fact that from the Turning Basin to the San Jacinto Monument, the channel is in a septic condition. No rhetoric can explain away the fish kills, or those not killed but rather described in the Federal Report as being small and sickly, without dorsal fins, and with hard crusts over their eyes, or the terrible stench that exists not only in the channel but in the bays as well.

Why have these conditions come to pass? I think the presentation so far is demonstrative of the overall problem. The Texas Water Quality Board has tried to deflect criticism from its own inadequate performance by attacking any unfavorable statistics in the Federal Report. In an attempt to discredit the report the TWQB has brought discredit to itself.

They have irreverently wrapped themselves in the Texas flag maintaining that this is some kind of fight between the State and the Federal Government. What purpose does this serve? This is no fight between the citizens of Texas and the Federal Government, for the Texas Water Quality Board has ceased to represent those citizens. By creating a false controversy, they commit a very serious disservice to those citizens. Dissension does not lead to pollution abatement. The Texas Water Quality Board's presentation at this conference has both metaphorically and literally muddied the waters. What is needed is an objective presentation of the problems and a mutual search for solutions. Self-serving statements by the Texas Water Quality Board, refusals to acknowledge either past errors, or present problems is counter-productive.

The State and industry should, of course, be given credit when progress is made. However, after a lengthy presentation by Mr. Whittington for the State accompanied by color slides, I don't recall any slides which reveal problem areas. The same is true for all of the State pollution conference presentations. Witness usually mumbles an acknowledgment there may be some problems but look at all the progress. Where are the slides and discussion of the businesses which haven't made progress? Where are the slides of the fish kills of malfunctioning API separators or the 110,000,000 gallons of unchlorinated sewage that is dumped into the channel daily?

This conference was not called to praise those responsible for our sorry water quality conditions but to correct them.

Much more serious than the testimony by the Texas Water Quality Board has been their action. They have set lax standards which though accepted by the Department of the Interior fall below the minimum recommended guidelines. They have granted permits which violate even these standards, and they have permitted violations of the permits. Such has led the Houston Ship Channel to become a haven for polluters. The irrebutable indictment of the Texas Water Quality Board's program is the water of the Houston Ship Channel and Galveston Bay.

I hope in formulating solutions the EPA will work with county officials who should be of invaluable aid.

I hope that the conferees will consider the total harmful effects of this continuous pollution.

Although I realize that you have jurisdiction under the shellfish clause, you will, of course, consider the broad range of economic and social harm. As Congressman Eckhardt pointed out the harm to oyster production is only one problem; one must consider shrimp, crab, and other fish which live or spawn in the bay. What will happen to those who made a living fishing those areas? What will happen to the property owner who moved to the bay several years ago and finds what was once an ideal home site now undesirable? Who will pay for the loss in land value?

Mr. Stein, I know that you have heard testimony in other conferences which point out the many dangers of water pollution aren't realized until many years after the harm has been done. This is, of course, most true with heavy metal poisoning which is either misdiagnosed or not detected until the injury is irreversible. What possible sense does it make to allow 55,000 pounds of oil and grease to pour into our channel every day?

What have industries done to clean up their effluent? The obvious answer is too little. Mr. Fulcher maintains that if they are forced to reduce their pollutants by 90 to 95 percent, they will just pack up and move elsewhere; that those big buildings they are constructing won't get filled. I would request that Mr. Fulcher submit a cost accounting breakdown which led him to the conclusion that reducing pollution by 90 percent would force industries to discontinue operation. The industries along the Ship Channel have maintained that they have expended vast sums of money on pollution control equipment. It has been alleged here that industry has spent $75 million through 1970. This sounds like a vast expenditure, but is it? What percentage of industries' total capital expenditures does this represent?

We know that the petrochemical industry spends on a national average an embarrassingly low .44 of 1 percent of gross revenue on pollution control equipment. I think that this conference should request an accounting of all the industries along the Ship Channel to see just what they have been spending on pollution equipment.

Let's see as well who hasn't been spending money. Why hasn't the State presented such evidence? Even the .44 of 1 percent figure is an inflated figure. Often business replaces antiquated equipment with more modern equipment, which incidentally reduces pollution, and include the entire expense as a pollution equipment expenditure. The claimed expenditures often don't take into account the fact that industries have received tax advantages for purchasing such equipment, or that such equipment must be used to clean up polluted water as it enters industry so it can be suitable for manufacturing and is therefore not solely used for discharges.

When industry expenditures are looked at in this light, I think that we will find that the industry's greatest expenditure has been the sacrificing of the environment of Galveston Bay.

The economics are such that those companies which genuinely wish to comply, which spend money on pollution, are at a competitive disadvantage if they attempt to. If they pay for pollution control equipment while their competitors choose to pollute and save money, it will cost them more to manufacture their product.

I was very encouraged to hear Mr. Quarles' remark Monday morning that he was not going to deal with industry with a "soft hand." Dr. Quebedeaux noted he has been trying to reduce pollution for 18 years. There is ample evidence to prove that there is widespread pollution of the bay. I suggest that the EPA, to demonstrate their good faith and their firm touch, begin bringing law suits under the 1899 Refuse Act against all polluters who are in violation of the FWQA standards, or at the very least institute law suits against those who are in violation of the permits granted by the State of Texas. There is no reason why this action shouldn't be instituted immediately. They have been in violation of an Act of the U. S. which has been on the books for 72 years. They have certainly had notice -- as you know, Mr. Stein, they had further notice since then applicable to waste discharges -- not only by the county who was able to bring some abatement in the late 1950's and early 1960's, but certainly they have been on notice since the passage of the Federal Water Quality Act of 1965. So this is not a question of something new, something they haven't had the time to get around to correcting. If any claim to have a program under way, usually the phrase is "a comprehensive program." You should point out that "under way" isn't enough. Bringing law suits is often unpleasant business, but not as unpleasant as the pollution that we have to live in here in Houston. I think that the members of this conference will be the first to admit that prosecution of polluters produces dramatic and salubrious response. Companies which are operating under a "comprehensive program" which will be completed at some future date, suddenly discover means of streamlining their comprehensive programs when faced with Federal prosecution.

This, of course, can be accomplished by uniform Federal enforcement. This conference must be aware of the problem. Under the 1899 Refuse Act you have the power to correct it. The people of Texas are tired and our environment is sick of waiting.

Thank you. (Applause.)

CHAIRMAN STEIN: Thank you.

MR. YANTIS: Will we have the same room?

CHAIRMAN STEIN: Yes.

I wonder, is there any way of ascertaining how much time we will need tomorrow?

MR. YANTIS: I wonder. Because there are people who had said they would like to speak who have not been here. They may very well be here tomorrow, and there is simply no way of asking them when they are not here. We have at least 4 speakers here who say they want to come back.

CHAIRMAN STEIN: We can make an estimate on it.

VOICE: I will speak probably 10 to 15 minutes and then you can question me 30 or 40, whatever you want.

2d VOICE: About 15 minutes.

CHAIRMAN STEIN: All right.

MR. YANTIS: Dr. Marrack says he wants to come back tomorrow with about 10 minutes.

CHAIRMAN STEIN: All right.

Mrs. Nyler?

MRS. NYLER: I think I will waive my speech, since it has been pretty well covered.

CHAIRMAN STEIN: All right.

At this point, we will reconvene in the same room at 9:30 tomorrow.

Now I ask you all to be prompt if you possibly can. I ask this of you personally.

As you know, I love Houston and love Texas, but we have a lot of other pollution problems throughout the country that are sorely waiting attention. You can just do so much over the long distance telephone.

We will stand adjourned until tomorrow at 9:30.

(Whereupon, the conference adjourned until 9:30, June 12.)

JUNE 12, 1971
A.M. SESSION

Mrs. H. Ginzbarg

CHAIRMAN STEIN: Let's reconvene.

Mr. Yantis?

MR. YANTIS: Mrs. Ginzbarg will address you first. She is adjusting her camera there for a few seconds.

Now, Mrs. Ginzbarg asked me to specifically state that she appears as an individual citizen. Now actually I hope I am not embarrassing her. She is a member of the Bayou Preservation Association and works with that group. She says that having not discussed her presentation with the group, she doesn't feel that she can present it on behalf of the group. Therefore she is speaking just as an individual citizen.

MRS. HANA GINZBARG

PRIVATE CITIZEN

BELLAIRE, TEXAS

MRS. GINZBARG: Hank Ruby said I could speak for him.

MR.YANTIS: I thought Hank was articulate enough to speak for himself.

If you denote a wee touch of a brogue, that is because we acquired her from elsewhere.

MRS. GINZBARG: Thank you. I have been here for a long time. (Laughter.)

I am Hana Ginzbarg, and thank you for the introduction.

My statement is in two parts.

First of all, I would like to make some comments. I have heard it said that if we had to do it all over again, we would never have chosen Houston as a site for a major city. After listening to some of the reports here, it seems to me that in 50 years, if the predictions of the Texas Water Development Board come true and as cited in the black paper the population of Houston will be tripled, we will not only be packed like sardines but we will be drowning in our own effluent. (Laughter.)

I hope that if this conference does not accomplish anything else that it will make those who are planning for a bigger and better future recognize that growth will not make things better, but will make things worse. Contrary to popular belief, growth does not just happen as we delude ourselves; growth is planned, and we are planning for growth.

Hopefully, after this conference, we will start planning for quality rather than quantity.

Now I would like to discuss a different type of pollution than has been talked about so far; namely silt -- silt which is being discharged into the bayous and washed into Galveston Bay. The silt is produced by erosion, not natural erosion but man-made erosion. The silt is coming from construction sites along the bayous, where the natural ground cover is removed and the bare ground is exposed, where dirt is being piled onto the banks of the bayous, and where the boyous have been rechanneled and converted into ditches with steep, eroding banks. The silt is also coming from drainage ditches which have been cut but not seeded, and left to erode. Bare ground erodes 500 to a 1,000 times faster than ground covered with vegetation.

Before I go on, I would like to show a few slides to illustrate what I mean.

[These slides and a key follow Mrs. Ginzbarg's slide presentation.]

Let's see. This is an outlet at the

construction site where Gessner Road is being built

MR. YANTIS: Hana, if you would like to, you can talk from this mike (indicating).

MRS. GINZBARG: Could you just put your hands on it and push it forward slightly -- the tray just very gently? It will stop moving. It takes awhile to warm up. I am sorry. This is the other end of that outlet (indicating).

[Slide.]

All right. This is just above the hole. All the silt is left. There is no protection, no controls over where the silt goes.

[Slide.]

This is the same pipe a little bit later after the road was put in. As you can see, it has been blocked with sediment.

[Slide.]

This is a construction site where apartments are being built, and the banks are bulldozed all the way down to the bayou, and the silt is floating down the Ship Channel from Buffalo Bayou.

[Slide.]

These are of Buffalo Bayou, by the way.

[Slide.]

Another construction site. We have skipped one. I am sorry. Before that one, if you can, push the reverse.

I am sorry about this. It takes awhile to warm up the machine before it works properly. It doesn't matter if you can't do it. Just skip it.

[Slide.]

This is silt that has accumulated over a period of 2 months while a road was being built. This happened to be the road to nowhere.

I believe you skipped one here that is important. It skipped one.

PROJECTIONIST: I am sorry, Hana; I can't hear you.

MRS. GINZBARG: It skipped one slide. There is a reverse button on the left. Can we go back one? On the left is the reverse.

[Slide.]

That is a construction site, where again the apartments are being built very close to the bayou in the flood plain, where they should not have been built, and all the dirt is allowed to escape off the side into the bayou and is adding to the silt load.

[Slide.]

This is one we have seen.

[Slide.]

Now this is a bayou that has been rech -- a section of Buffalo Bayou that has been rechanneled in 1966. Since then, it has been estimated that for every running foot, the Soil Conservation Service said 2 truckloads of dirt have been washed away. All of this is going down into the bay.

Now close to this is another section that was rechanneled, and the bank is almost vertical. There is no way to control erosion here unless the whole thing is reconstituted, I suppose. And all of this has been going on in the same place.

[Slide.]

This is upstream on Buffalo Bayou. This was rechanneled in the 1940's.

I don't know how much silt has been washed away from here, but you can see there must have been quite a bit. These are drainage ditches that were not seeded when they were first built, and they are just left to erode.

[Slide.]

This is a sewer line going into the bayou. This is off of Memorial Drive into Buffalo Bayou.

[Slide.]

This is another drainage ditch.

[Slide.)

Here the developers have stripped the bank or bulldozed the bank all the way down into the stream. I watched this for over 2 years now, and it has been the same.

[Slide.]

This is the same side as we have seen.

[Slide.]

Here you have a land fill operation. Dirt is being dumped onto the banks of a tributary of navigable water to fill in the flood plain where apartments can be built close to the bayou, and all this steep bank is left to erode. There is no way to stop erosion here.

[Slide.]

Another land fill operation.

[Slide.]

Here it is being filled with garbage refuse, and more garbage right on the banks of the bayou.

VOICE: On which bayou?

MRS. GINZBARG: This is Buffalo Bayou.

[Slide.]

This is a land fill for a road.

[Slide.]

Here the stream has been filled in or is being filled in and the processes are rechanneling. This is right in the middle of the stream.

All right.

MR. LUYTIES: I believe that is all of them.

MRS. GINZBARG: That is it.

Thank you. May I have the lights?

There is a project proposed to remove some of the silt from portions of the bayou by the addition of chemicals -- chemical settling agents. I don't necessarily object to this project, but it seems to me like it is treating the symptoms rather than the cause of the problem. Preferably, at least a concurrent method of cleaning the bayou, would be to prevent erosion at the source. These poor development practices which cause erosion could be stopped by local land-use and sediment-controlled ordinances. Unfortunately neither Houston nor Harris County is willing to pass the necessary ordinances.

We are, therefore, dependent upon existing Federal laws for protection, particularly the 1899 Refuse Act. Section 407 of the Refuse Act provides that it is unlawful to dump refuse of any kind on the banks of any navigable waterway or its tributary.

We need help from the Environmental Protection Agency in enforcing this statute. So far, the U. S. Attorney has not been willing to file charges, even though the Corps of Engineers has admitted there have been violations of the Refuse Act.

The Corps of Engineers considers these practices common and reasonable, and therefore not actionable.

The construction and development practices which are producing the discharges of silt could be stopped if the Corps of Engineers would require permits for construction, and if before these permits were issued, the detrimental environmental impact would be considered, and no permit would be issued where this type of situation occurs.

The problem is that these cases that I illustrated are on the tributaries of navigable waters, not on navigable waters. And the Galveston District of the Corps of Engineers is requiring construction permits only in navigable waters -- even though it seems to us that the Refuse Act has been expanded and has expanded the responsibilities of the Corps into tributaries of navigable waters.

Even if permits for construction are not required on tributaries of navigable waters, the designation of "navigability" could be extended. The designation of "navigability" is more or less arbitrary. In most of the United States, a river is considered navigable if a log would float on it.

The Galveston District has a list of navigable waters, an arbitrary list, and only those rivers or bayous that are on this little list are considered navigable.

I have heard a story about a colonel of the Corps of Engineers. And when I heard the story I don't remember where it was or when it was, so I'm sorry I cannot document this. But it seems that this colonel liked to cruise in the water that was not navigable, and the property owners there tried to keep him off the stream.

A navigable water is accessible to the public but a tributary is not. So this colonel simply declared this particular stream navigable and continued cruising.

It seems, therefore, that it should not be very difficult to extend the definition of "navigability" to streams that may not be designated as such but should be.

Buffalo Bayou certainly is navigable. There are plenty of logs afloat on it. The Canoe Club holds an annual regatta on Buffalo Bayou where they take canoes all the way from Addicks Dam downstream. Buffalo Bayou is only navigable by definition up to Shepherd.

We need help from the Environmental Protection Agency to expand the Refuse Act and to require construction permits on tributaries of navigable waters, or we need to expand the definition of "navigability." The problem is urgent. Not only is Galveston Bay being silted up but the natural waterways are being destroyed by private developers, who are filling in flood plains, and by the Harris County Flood Control District, which is determined to improve or wrecktify -- spelled with a "w" -- every bayou in the county.

We are concerned particularly at this time about Armand Bayou, formerly known as Middle Bayou, which is to become a conservation park. The Harris County Flood Control District is making plans to dredge part of this bayou. The part of the section which is to be dredged is navigable, but a part is not. We hope that a permit will be required in this section also before the Harris County Flood Control can touch it. And we hope that the Environmental Protection Agency will give full consideration to the drastic impact of any dredging and that it will not grant permits.

We hope that the expanded permit program will be put into effect in time to save not only Armand Bayou but all bayous, whether navigable or not.

Thank you. (Applause.)

[The foregoing slides and a key follow.]

Slides shown by Mrs. Hana Ginzbarg at the EPA Pollution Enforcement Conference on Galveston Bay, June 11, 1971.

Bare Ground Exposed:

1. Construction site (West Point Apartments). Vegetative cover was removed and exposed banks left to erode for two years.
2. Same site.
3. Construction site (Stoney Brook Apartments). Mud discharging into the bayou.
4. A closeup of 3.

Dirt and Fill dumped on the Banks of Buffalo Bayou:

5. West Point Apartments.
6. Glynn Way.

Bayou Rechanneling:

7. Since this 400 foot channel was dug on Buffalo Bayou near Chimney Rock in 1966, 6,700 cubic yards of soil have been washed downstream. Two dump truck loads of soil would be needed to replace the eroded soil along each foot on each bank for a total cost of $13,000. To remove the 6,700 cubic yeards of sediment which accumulates in the Houston Ship Channel would cost another $13,000. Bare ground erodes some 500 times faster than unbroken ground.
8. Closeup of 7.
9. Rechanneling done by the Corps of Engineers in the 1940's near Lakeside Country Club.

Mrs. H. Ginzbarg

Drainage Ditches:

10. (West of West Belt, north of the bayou).

11. (Off 8000 Westheimer).

Discharge from Construction Site:

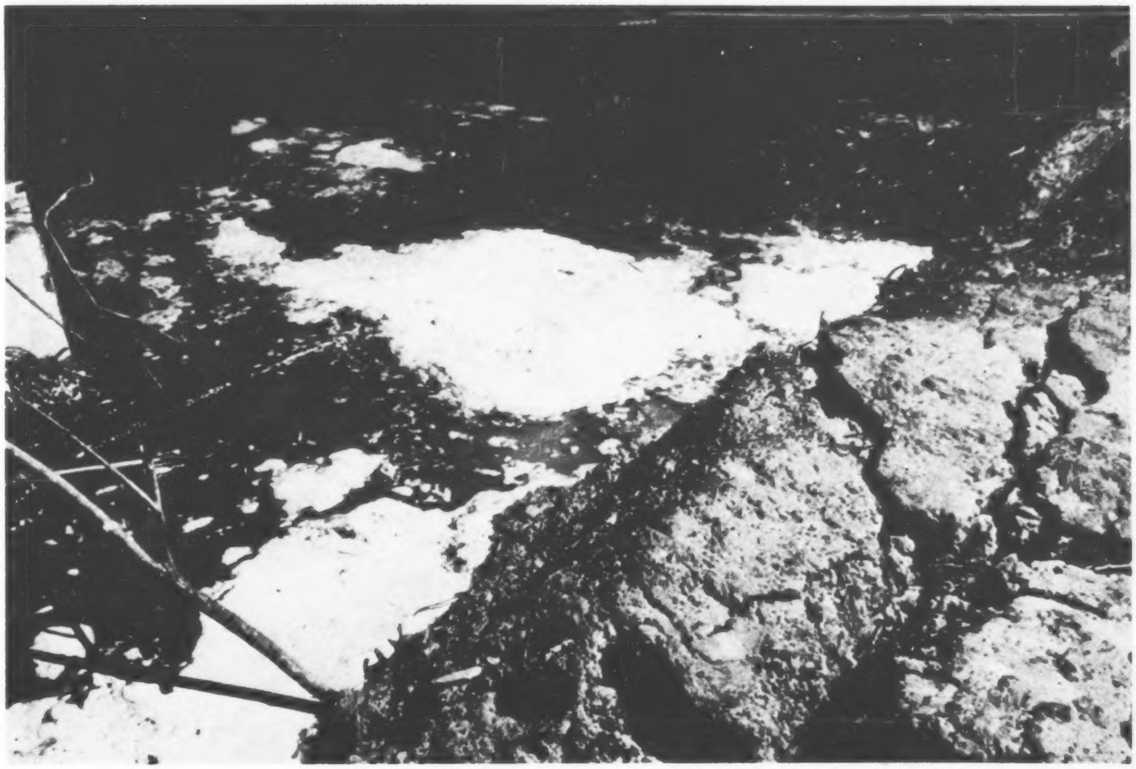
12. Inlet (Gessner Road).

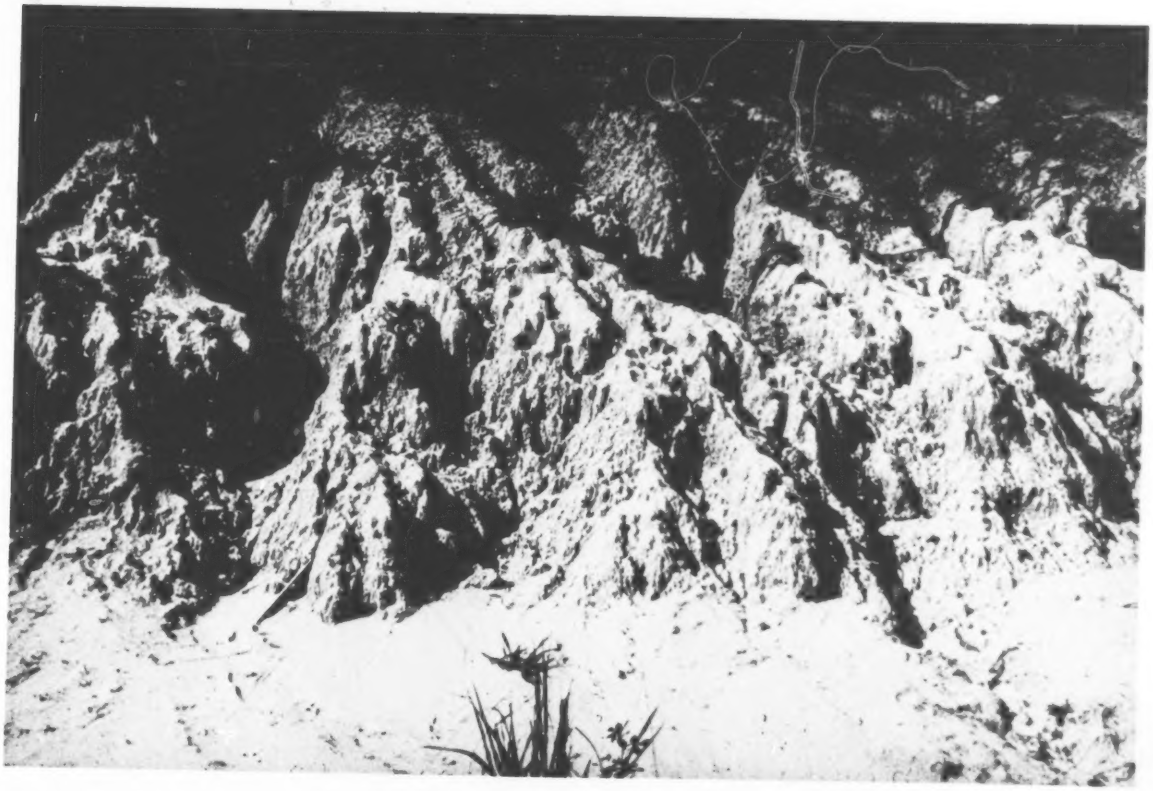
13. Outlet (Gessner Road).

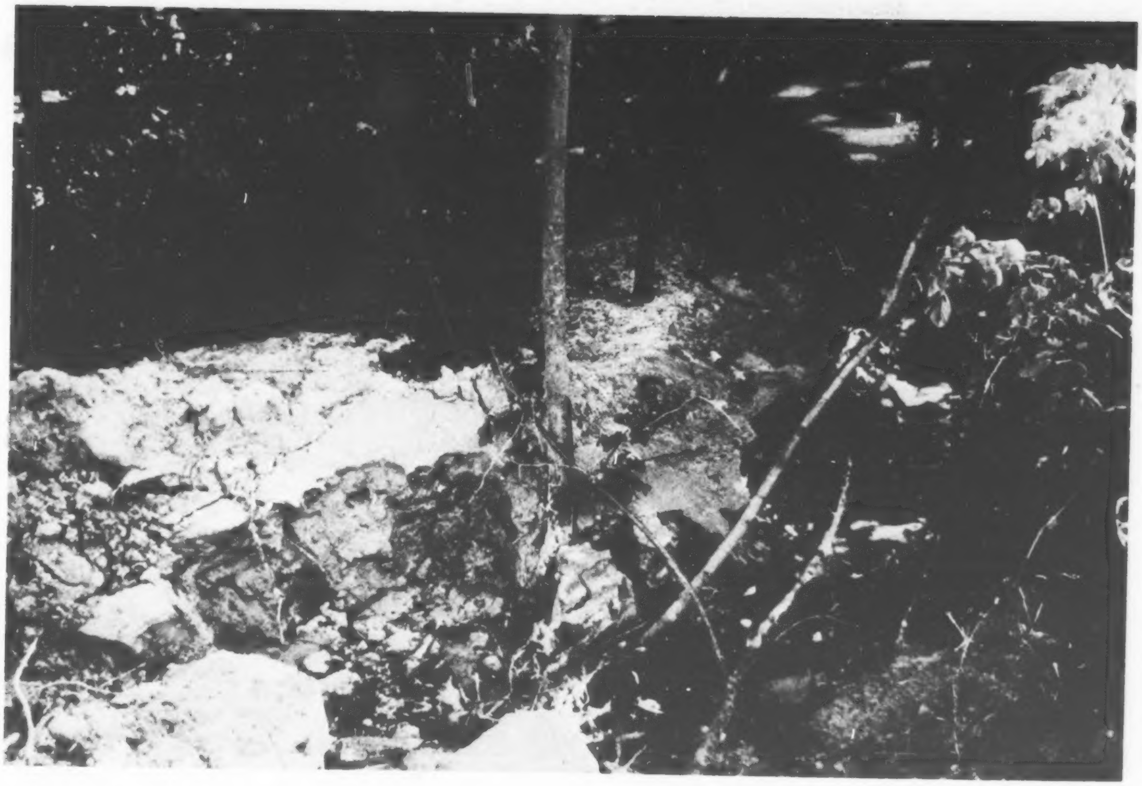
14. One month accumulation of silt (San Felipe "Road to Nowhere").

All sites are on Buffalo Bayou.

Refer to numbers.







CHAIRMAN STEIN: Thank you.

MR. YANTIS: Thank you, Hana.

I know that Jerry Kerkey has been very interested in this line of thought also.

I think it comes down to raisable problems. Because you certainly can raise questions that I cannot at the moment answer. But it is a field of public policy of government wherein the policy has not been clearly set out, nor has the regulatory framework yet been constructed.

I know that you are aware that it is a complex area but one which isn't foreign.

Now I believe if I have my names straightened out here -- Mrs. Stewart, were you the one who was going to follow her?

MRS. VAUGHN STEWART
CITIZENS SURVIVAL COMMITTEE, INC.
LAKE JACKSON, TEXAS

MRS. STEWART: Yes, sir, please. Mrs. Sharron Stewart.

CHAIRMAN STEIN: Do you have your slides already ready?

MRS. STEWART: Mrs. Ginzbarg is setting them up. They will be at the end of my talk rather than at the first.

First of all, as I introduced myself, I am Sharron Stewart, Mrs. Vaughn Stewart from Brazoria County.

I represent the Citizens Survival Committee, Inc. This group has been formed only 7 months. It is a mere baby in the pollution fight, but we already have over 560 members.

February 26, 1971, was my first experience dealing with the Water Quality Board. At this time, the Dow Chemical Company permit came up for review at the regular board meeting in Austin, and before becoming involved with the CSS, I attended this meeting.

CHAIRMAN STEIN: Pardon me, Mrs. Stewart. Are you going to talk about Dow and the Brazos?

If you are, you can ---

MRS. STEWART: As an example, in relation to the Houston Ship Channel and Galveston Bay.

CHAIRMAN STEIN: Do you recognize that the call of this conference is limited?

MRS. STEWART: Yes, I do.

CHAIRMAN STEIN: And under the Administrator's action in calling this conference, I am limited to only taking action in the Galveston Bay-Houston Ship Channel and the tributaries of that basin?

With that, you can go on.

MRS. STEWART: I realize that. Thank you.

CHAIRMAN STEIN: Right.

MRS. STEWART: When this permit came up for review, I had never heard the term "BOD." Since then, it is a household word in the Brazosport area.

By that I am implying the people of the Brazosport area really understand the full implications of what it means, but we do suspect that certain sections of the Brazos River are dying or dead as a result of it.

I have a few specific recommendations to make to this group that will help citizens groups in dealing with the Water Quality Board.

Now these can be implemented by policy rather than statute. These recommendations arise from the result of problems of citizen groups in general that they have and most of which have already been mentioned. So I won't go into what the problems are, only the recommendations.

1. Adequate notice.

Most of the time citizen groups learn by accident of the application for further permits or any related items from the Water Quality Board.

For example, the CSC learned that Dow had applied for an amendment to their existing permit No. 00007 by attending government bodies -- in particular, the June 1 meeting of the Houston-Galveston Area Council. This item was on their agenda because it was protested at that time.

It was held over until June 8, where it was discussed and tabled until after the Water Quality Board meeting to be held in the Brazosport area next month.

I would like to introduce as an example the two agendas, plus, day before yesterday, the legal notice of this hearing which finally appeared in the paper on this permit application.

Now as to adequate notice, I think this is probably the most adequate notice that has ever been put out by the Water Quality Board. I want to read this public hearing notice into the record.

This is from the June 10, 1971, Legal Notices of the Brazosport "Fact."

PUBLIC HEARING NOTICE

The Dow Chemical Company-Texas Division, P. O. Drawer K, Freeport, Texas, 77541, had applied to the Texas Water Quality Board for an amendment to their waste control order No. 00007 for 3 existing discharges from the chemical manufacturing complex, which is located adjacent to Freeport and the Gulf of Mexico and in the Stephen F. Austin league A19, Brazoria County, Texas, as follows:

Outlet No. 1 (Plant A effluent canal) for a discharge not to exceed an average flow of 1,150,000,000 gallons per day of industrial wastewater; cooling water, 88.3 percent; process water, 11.6 percent; domestic sewage, 0.02 percent; boiler water blowdown, 0.01 percent; and wastewater effluent is discharged into the effluent canal and hence into the Brazos River.

Outlet No. 2 (Power II Canal) for a discharge not to exceed an average flow of 585 MGD industrial

Wastewater; cooling water, 77.4 percent; process water, 22.5 percent; domestic sewage, 0.03 percent; boiler blowdown, 0.02 percent; and wastewater effluents through the canal into the Brazos.

Outlet No. 3 (Styrene Canal) for a discharge not to exceed an average flow of 1,000,000,000 gallons per day industrial wastewater; cooling water, 89.9 percent; process water, 10.0 percent; domestic sewage, 0.02 percent; boiler blowdown, 0.2 percent; and wastewater effluents are discharged into the Styrene Canal, which means the Power II Canal, and thence into the Brazos River.

A public hearing on this application will be held in the Brazoswood High School Auditorium, Brazosport, Texas, at 9:30 a.m., July 6, 1971, to receive evidence on the conditions, if any, under which the order may be issued. Additional data will be developed at the hearing, but further technical information concerning any specific aspects of the discharge, if available, can be obtained by writing the Texas Water Quality Board,

Mrs. V. Stewart

1108 LaVaca, Austin, Texas 78701.

I am very thankful to the Water Board for this statement, and I herewith will send them a written request for all of the pertinent technical information concerning this permit application.

Now having seen some of this information, I know it comes in boxes, not volumes. I also wonder how many other preceding permit notices have contained this final statement or if this is a new policy by the Water Quality Board. I am very thankful for it, and I hope they will adhere to it in all instances.

Also, I think you can all add and get the total volume of the effluents put out.

Now there is no way of telling what the quality of that effluent is, as far as I can see. But you discuss quality here about the Houston Ship Channel and Galveston Bay effluents. You have discussed BOD. Mr. Whittington said the BOD for the Houston Ship Channel was approximately 200,000 or 190,000 pounds per day.

Out of this February 25 hearing in Austin, Mr. Emory Long of the Water Quality Board, on page 7 I believe of the official court transcript (indicating), said that the BOD coming out of Dow to the Brazos River is 120,000 pounds per day.

Now if we are complaining about the Houston Ship Channel and the 630 some odd people whose permits eventually wind up there, why is there not a hue and cry about the 1 permit that puts almost about the same amount of load on this Gulf Coast area? Why have the voices been silent?

As to Notice, we ask that notice by the Texas Water Quality Board of hearings be publicized in the largest newspaper of the county affected by the outcome of such hearings for 5 consecutive days, with the date of the last publication being no less than 90 days prior to hearing, giving citizen groups time to do something to find out technical information concerning any applications, within a reasonable length of time that they are submitted to the Water Quality Board.

2. That any citizen who manifests any interest in the hearing be given 30 days, from the date of the last publication, to file with the Water Quality Board a written request that he be advised of all preliminary hearings and be sent copies of all

pertinent material on that hearing.

3. That all original statutory permits issued by the Texas Water Pollution Control Board, now known as the Texas Water Quality Board, under the Water Quality Act of 1961, be reviewed so as to come in compliance with the definition of pollution of that act, within a reasonable time to be determined by the board.

One of my exhibits is no longer necessary, thanks to Mr. Emmanuel yesterday, but I would still like to read that definition into the record. I haven't heard it in all these preceding 5 days of this testimony.

"Pollution: The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the State that renders the water harmful, detrimental, or injurious to human, animal life, or vegetation, or property, or to public health, safety or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose."

If the State of Texas were in compliance with this definition, there would be no need for this body to be assembled here 6 days.

4. To eliminate economic considerations as a criteria in establishing and enforcing water quality standards.

We already know who ultimately pays the cost. This has been made quite clear by this gathering.

5. If there is absolutely no technological, feasible method available to abate a particular waste discharge, that the entity involved be given a reasonable time, to be determined by the Water Quality Board, to find that technology. And if they don't, that the particular facility be closed until such time as they do find that technology with the exception of a product that is absolutely essential to the survival of mankind.

6. That the Water Quality Board require industry to make bioassay tests a parameter for their reporting data, and that high and low concentrations be reported, as well as 24-hour averages. This data should be made available by industry to the public on written request.

7. That the Texas Water Quality Board

refrain from the practice of lobbying on issues in which they are being involved in a judiciary or regulatory manner. That does not preclude them from lobbying on fines.

8. That enforcement policy reflect the same quickness of action with the largest and most powerful polluter as with the small individual polluter.

I want to read an excerpt from the December 1, 1970, Coastal Resources Management Program Report to the Legislature.

"Facts about the coastal zone: Population increased 20 percent between 1960 and 1970. There are 25,394,003 acres of submerged land and islands of which 80 percent are private, 16 percent State, and 2 percent each in Federal or local government hands.

"There are 760 square miles of marshland, 2,100 square miles of bays and estuaries, 200 square miles of formal wildlife refuges, and 35 square miles of mudland and spill.

"There are 1,890 miles of waterfront of which 1,419 are bayfront, 373 front on the open gulf.

Mrs. V. Stewart

"Fifty percent of the world's shrimp depend on the Texas estuarine complex.

"Estuaries are 20 times as fertile as the open gulf.

"One-thrid of the State economy is concentrated in 1/120 of its area within the coastal zone.

"Municipal and industrial wastewaters contribute to our estuarine system 162,600 MGD; 1,269,200 pounds of BOD per day; 1,494-plus pounds of suspended solids per day; 59,300-plus pounds of phosphates per day and 4,876,800-plus pounds of COD per day."

Now I have heard that the marshlands of the Texas Coast are estimated at an average value of $600 per acre. I think that is extremely low as to the value for mankind of this property. And something has got to be done to save it.

If you are going to do something about Galveston Bay, what about the rest of the coast?

I have a navigation map here showing the Galveston Bay Complex down to Cedar Lakes, giving you an idea of what these marshlands in the involvement of the waterway is. I would like to submit it also into evidence.

CHAIRMAN STEIN: We will take that map as an exhibit.

MRS. STEWART: All right. That is fine.

[The above-mentioned map, marked as Exhibit, is on file at HQ, EPA, Washington, D. C., and Region VI, Dallas, Texas.]

CHAIRMAN STEIN: Let me go off the record for a second.

(Off the record discussion.)

MRS. STEWART: Also, I would like to suggest that the surface patterns and currents of the Gulf of Mexico be taken into consideration by this board.

I will, as soon as I can get to Galveston and get one, submit a map of the currents for exhibit, but at this time, I would like to insert this in the record.

There have been some problems with waste discharge in the Houston Ship Channel. Some companies have been forced to find an alternative method. Some, or one of these companies disposing of this waste for industry has been closed down by Harris County. Now as a result of that, this company is not out of business, but they are disposing of their waste somewhere.

I would like to suggest that this time the EPA find out definitely and for all time whether this waste is being disposed of in the Freeport area, because French Ltd. trucks are repeatedly seen there, especially at night. (Laughter.)

And I hope that this name calling is specific enough.

We don't want Houston Ship Channel waste being sent to our area. We are already overburdened with pollution.

Some very pertinent information, as far as I can see, is left out of this report.

We had a tape of this report made at that time by an individual who was kind enough to give it to us, and those of us who did take notes that day and who previously did not know anything about any of the information involved know that the notes do concur. So we assume it is correct.

The permitted volume of discharge from these three effluent canals presently under the statutory permit is 3.5 billion gallons per day. At this hearing, it was admitted that they were putting in -- let's see, let me be accurate -- 4.57 billion gallons of effluent.

Now they also stated under their self-reporting system, a BOD level of 4 ppm as an average range. Over the same period, Bob Clark, a biologist on Senator Clark's staff, testified at the same hearing that his grab samples showed an average BOD of 60.

My faith in this self-reporting system is not exactly strong, and that is why some of these recommendations have been made.

You are having a problem in Harris County with injection wells as an alternative source for disposal of waste that would go in the Ship Channel.

We also have a problem with injection wells that could destroy this same aquifer and you have 5 practicing wells in Harris County within a small radius.

We have 5 practicing wells that have gone into operation for chemical waste disposal in the Dow Complex since 1967, and there is a permit for a further deal -- a Badische application -- that is being considered by the Water Quality Board next month.

We object to these wells -- the ones in operation and the ones to be in operation -- for the same reasons that the EPA objects and the Harris County pollution officer objects.

But so far our voice has not been heard. I hope that any decisions arising out of the Armco Steel case will be applied to our area also.

I would also like to suggest that the parameters for permits, the total parameters, be included in all permit applications and permits filed, so as to be available to the general public upon request.

I recently received, after going to Austin and calling Austin, from the very kind staff of the Water Quality Board, the application by the Dow Badische Company for their second waste disposal well, and copies of the permits for the five other wells.

Now on these five wells, there may be as much as 3,000 feet or more on the permit as to what the actual strata is that these things are injected in.

Now I know that is not exactly where these things are injected because at the preliminary hearing on this Badische well, the application says the depth of the well is 6,100 feet. The depth of the injection interval is from 3,300 feet to 6,100 feet.

It was stated at that meeting that the actual strata is 5,385 feet to 5,470 feet. I want to know why it isn't on the permit application and why it isn't on the other permits. We can't find out anything if the information is not included. And how can citizens who have to hire technicians to interpret their data find out anything if we can't get that information and get it soon from the Water Quality Board?

I would like to submit this as an example, but as this and the upcoming data are the only copies I have, I will have copies made and sent to you Monday.

CHAIRMAN STEIN: That is all right. Submit it as an Exhibit.

MRS. STEWART: All right. I would also like to submit this report and I know you don't like newspaper clippings or magazines, but since these are individual statements attributed to individuals I would like to submit this magazine. Page 1.

CHAIRMAN STEIN: We will take those, but we take them as exhibits.

MRS. STEWART: All right. That is fine.

[The above-mentioned items, marked Exhibits, are on file at HQ, EPA, Washington, D. C., and Region VI, Dallas, Texas.]

CHAIRMAN STEIN: Let me explain the policy on that so everyone understands this. Where something is published in a magazine or a newspaper, and you can get it through regular sources or through regular channels in a library, you can put them in as exhibits. But if we publish those, and something is available in every library, you can be sure that the people who look over our shoulder in Congress and in the auditor's office are not very enthusiastic about that practice. So therefore, We accept those as exhibits on the theory that people who are interested can get them fairly readily from another source.

MRS. STEWART: That is fine.

CHAIRMAN STEIN: All right. Thank you.

MRS. STEWART: I only want to submit pages 2, 5 and 6 out of this issue, and fortunately, I do have enough copies of this to be submitted to each of you and for the record.

Now this gives some of the information that was not included in that record, but that was brought out and that is the purpose. Also, it includes some of Mr. Yantis' comments about the prehearing with Dow 2 years previously -- 2 days previously.

Those of you who have been in Texas for a long time know that the original settlements in Texas were along the Brazos River at Velasco -- now Freeport -- because it was considered the most navigable waterway in Texas.

Now as population increases in Houston, water is needed. Expansion is coming our way. Within 4 years, when the superhighway is completed between Freeport and Houston, the expansion will be even greater.

We have a deep water port facility. We have the Brazos, in such condition as it may be. We have good groundwater. There is plenty of land.

Dow is not going to move out. If they did, every other complex and industry in this county would be fighting to get in there and take their place.

Mrs. V. Stewart

Unfortunately, we have an overabundance of the petroleum-chemical industry in our area which does not make for diversification, and their influence on the ecology of the area is strong.

I suggest that it might be a good idea to investigate these outflows under the navigation section of the Refuse Act of 1899, and also under the fact that they are not in compliance with the Federal permitted levels of pollution in this area.

I have a preliminary report by the Water Quality Board, actually by the Parks and Wildlife Department, that was submitted to Mr. Yantis on the 23d of February, 2 days previous to the Dow hearing. I understand this is preliminary. One more section of this report I understand is complete, and the other two should be complete within the next 8 months.

But the solids on the bottom of the Brazos from Dow to just above the Intracoastal Canal are 1-1/2 feet thick of calcium carbonate and magnesium hydrocarbons, and it didn't get there by itself. Unfortunately, it didn't just slide down the immediate continental shelf, it had a little help.

A few years ago somebody from Austin flew overhead and saw one of these outfalls, and they complained about it. So, behind the Power II plant, Dow extended a 12-inch pipe out into the Brazos River and put a joint on it and aimed it 6 feet straight down. It had help settling out at the bottom.

The new Brozos River was moved in 1939. The first Dow plant was completed I believe in 1941.

Now how come we have got 1-1/2 feet of sediment on the bottom of the Brazos in 30 years when it has taken all the time it has to get the Houston Ship Channel in the condition it is in?

I understand that this permit revision, which would slightly increase in volume -- and I cannot tell as of yet about quality -- would increase the temperature at the outfall to 100 degrees.

We have had a lot of discussion about thermal pollution in the past 5 days, and I don't think this should be overlooked. There has also been a discussion about moving the Houston Lighting & Power plant to the Brazos. Well, the Brazos has already been damned up considerably. Well upstream, in the flow under which Dow is supposed to discharge, many of these vast quantities of organic solids are discharged at 5,000 cfs, and the Brazos very seldom reaches that volume, and discharges do occur at lower volumes.

Now another powerplant on the Brazos drawing that required amount of water that was stated here is going to increase these volumes at a lower rate. Anyway, you know what I am getting at. I believe we are going to have higher concentrations of pollution going into the Brazos if more water -- vast quantities of water -- are drawn from it upstream.

So, we hope that Houston Lighting & Power is able to come up with some recommendations that would stop their Cedar Bayou plant from being such a vast polluter, so they don't have to move to the Brazos. I am sure they ultimately will, but at least not until Dow works out their problems.

The Galveston Bay complex, as stated yesterday, is only 5 percent in Brazos County. And at this time, I would like to say our people support the position taken by the Sierra Club in regard to oil wells in this complex, and also the entire position, as stated by members of HEP yesterday, with the one exception as noted by Mr. Stein.

I have some slides of some of the outfalls of the Dow Chemical Company. And at this time, I would like to show them without too much comment because my identifying piece of paper -- I loaned it to someone and had to get them to send it back by mail and the identifying material is not exactly available. But I think as has been stated before the thing speaks for itself.

[Slide.]

You will note the barge (indicating). This is an airplane view. There are 6 slides that have been taken.

[Slide.]

There you see a settling pond, and if you have noticed the absence of air pollution in other slides, maybe you will notice it in this one.

[Slide.]

Again, you can see the effluents coming out of the canal.

[Slide.]

Going into the Brazos.

[Slide.]

I might add that the normal color of the Brazos is very muddy red. The causes of why it is this color (indicating) I think have already been previously discussed and are in this report.

These are pictures within the plant. This again is one of the outfalls into the Brazos River, and you can see the pipes going down there where they do their testing.

The birds, you may note, are scavengers. They build their nests in the most polluted spots they can find.

Again you see the outflow and look at the refuse along the canal and river.

[Slide.]

Note again the color and just the normal flow.

[Slide.]

These are testing devices.

[Slide.]

This is a waste canal.

[Slide.]

I think again the thing speaks for itself.

I have a few of these slides to submit for exhibits and will submit the rest as black and white photographs as soon as I can get them developed.

CHAIRMAN STEIN: Thank you very much.

MRS. STEWART: Yes. Here is this report (indicating).

CHAIRMAN STEIN: Thank you.

Do you want to make copies, and then submit it after you have made the copies? That may be easier, Mrs. Stewart. Why don't you take this back now so they won't get packed in?

MRS. STEWART: All right.

CHAIRMAN STEIN: Just help yourself. Thank you very much.

[The above-mentioned slides, marked as Exhibit, are on file at HQ, EPA, Washington, D. C., and Region VI, Dallas, Texas.]

MR. YANTIS: Thank you, Mrs. Stewart.

Of course, the things you showed are the reason why the permit is being amended. Probably it should have been amended earlier, but it was not. It will be amended. I think that when we are finished, it will be a very satisfactory permit.

I did make some notes while you were speaking. I believe all of our notices of hearing state that further information is available in the files of the Water Quality Board. I think they always have. The information costs, though.

Oh, well, we can within limits send out a small amount of information, but it costs about a dollar a page. Under the law we are required to charge. So I want you to know that if a great number of people ask for any amount of information, it is expensive both to us and to them.

But it is available if people wish to come to Austin and look at it. They can look at it as long as they wish and make copies if they wish. But there is simply no way to include it all in the public hearing notice. And while this one is probably a little more complex than most of them, it is the most complex one that we have written.

Anyhow, the information is available to a degree without cost. But when it becomes a burden, then there would be a cost. And as to the public hearing notice itself not only in the water quality field but in many, many fields, the actual manner in which the notice is to be published is specified by law.

We cannot publish it 90 days in advance. We cannot publish it, I believe, more than 30 days in advance.

The law used to say not more than 30 or less than 20, the idea being that we get more complaints when a notice is published too far in advance because the people say, "We forgot about it because it was so long ago."

But we do pick the paper that we think people read. It is our choice, set out in the statute.

In Brazoria County, for instance, the Houston papers are certainly leaders, and perhaps also in other towns.

We choose the Brazosport Fact because it is most likely to be read. But there are counties that don't even have a paper, so we have to take an out-of-county paper.

Over and above what the law has specified, we have added a great deal of notices. One of my most ardent admirers, Mr. Ned Pruitt is routinely on the list to get a copy of every notice we mail. He gets them all. I have upon occasion felt that when people complain -- I mean conservation groups -- that they weren't notified, I refer them to Mr. Fritz.

I don't know whether I could stir up a fight or not. I might. (Laughter.)

It is not possible to notify everyone, but we do notify a whole lot of people.

Many of the things you have said I certainly agree with. For example, I am glad you said some nice things about the coastal study and how much we need it.

It is not generally known, but I personally initiated that study. It took a whole lot of letters and work with both Governor Connally, and later with Governor Smith. But now it is going, and someday I think it will be a valuable addition to the knowledge we have about our coast.

Mr. Stein and I have had sort of a running discussion on the value of pounds per day as opposed to concentration. I think you have to know technically quite a bit about water pollution control before you can really have a firm opinion about which one is best.

As a matter of fact, they are both usable. They are both good. But you have to know what you are doing.

Now I am not exactly talking to the newspapers over there (indicating) at this moment, but most people do not complain about the salinity of the Brazos River in the ordinary sense. Rice farmers occasionally do at certain times of the year. And yet not talking about Dow but just the river generally as the river runs, it does carry a pretty fair salt load -- all natural. A little of it used to come from oilfield brine, although I think none of it does now.

I calculated one time if all the salt carried by the Brazos River were put into railroad boxcars, you could take a 100-car train of 50 tons per car and run that 3 times a week, and some weeks 4 times a week, to carry simply the amount of salt that normally goes down the Brazos River. And yet it is not an excessively salty river.

So pounds per day can fool you if you do take say circulating cooling water -- not necessarily Dow, but just a cooling-water stream -- that is nothing but the water picked up and the water put back. Calculating the pounds per day of the dissolved minerals in it can get into the let's say millions of pounds per day, and yet it has no meaning.

So, concentrations ordinarily is what people live by. I mean it is the way we live -- concentration of air, concentration of things in water. Concentration is what counts, not just the gross amount.

Obviously, a small bay has say 1,000 tons of salt in it. The ocean would have countless millions of tons of salt in it, and yet their quality would be the same. So, you can be fooled very easily with pounds per day.

Now we are not in the business of trying to fool people although sometimes people do think we are. I am really sorry that you feel that you need to employe technical people. I know there are other clubs who feel the same way, and yet we do work for you. Yet, I would have to point out we also work for other people, some of whom don't agree with you.

So, we do try to be objective. But all in all, I think that when the Dow Chemical Company permit is reconstituted and finally comes out -- and it will all be done in public; and all of the findings will be available to the public including concentrations and everything else -- it will be a good situation.

Now beyond this I didn't really want to talk about Dow. As I say, they are not here.

MRS. STEWART: Yes, they are.

MR. YANTIS: Where? I didn't realize they were here. I had forgotten. I saw him downstairs awhile ago. But, anyhow, it is not a quality hearing and it is not properly discussable today.

It is properly discussable in our public hearing before the board, and it certainly is something of interest.

You made a mention of Senator Clark. It was Senator Schwartz.

MRS. STEWART: I am sorry. I thought I said Bob Clark who works for Senator Schwartz. I apologize.

MR. YANTIS: Much of what you said has merit. As for some of the rest, I think it will be worked out in the public hearings, and I am sure that there will be disagreement. But you know when everybody agrees, somebody is not thinking. So, if you do want to make any rebuttal, I of course will give you equal time.

CHAIRMAN STEIN: Hugh, before you do, I certainly don't want to get into this discussion now. But again I would just like to note for the record that we are going to have to work this out with Texas as to how we do this.

It seems to me that when I talk in terms of pounds per day, I mean that we subtract what comes in with the intake water. Precisely as you mentioned, if the public can follow what we are going to do, and once we translate these figures into terms of pounds per day as added by a particular manmade source, I have found that the public has followed it much better, and gives it more credence.

But this is a technical subject. The only reason I am stating this again is that if we are going to have a cooperative program, we are, obviously, going to have to work out with Texas our two different views on this subject.

MRS. STEWART: Exactly.

And one of the points I had hoped to make is that the way in which these things are measured should be the same with a concensus of opinion on all levels. The public should know what the quality is, as well as the quantity. It has been our experience that it is these small high-grosses that we get at certain times during the day, and not the overall picture, that causes the repeated fish kills and other incidents of pollution in the area, and in all that vast complex of area.

MR. YANTIS: Mrs. Stewart, this is exactly the point, and you are right. If you have a small stream, a creek or a small river, and put solid salt -- just dump it out from a truck into the river -- you can ruin that little stream by making it quite salty and killing anything in it.

Yet, if that same amount of salt is dissolved until the concentration per gallon is, you know, not even salty to the taste, then because the dilution is actually in the waste, you can put an infinite quantity out without hurting anything. The point we quite often try to make is that given the proper concentration in an effluent, there really is no problem as to volume. It can be any volume if the purity is good enough.

It it's still concentrated, of course, you still have to limit the volume. But the size of the stream, the kind of stream or lake, is important.

Now I can give you a real good case about putting salt in a river concentrated if there is no dam. But if there is a lake, you may know that everything you put into it has still got to be trapped behind the dam, and someday will be subject to evaporation.

There are no hard and fast rules as to how you are going to use your figures. They, of course, have to be used with judgment. But this is the reason more than any other, except I don't like to say. It is simply that we did not get to Dow until less than a year ago when we began conversations to upgrade the permit.

It is a big plant and if you are going to do it right, it takes a lot of talking and a lot of thinking.

By and large, the Dow effluents, regardless of the figures Bob Clark has, which may or may not even be correct -- if the figures are correct, if BOD alone is what you are talking about, and the BOD has in it no bad character otherwise, like taste and odor things, speaking just of BOD, it would be pretty hard to hurt the river with a 10 BOD discharge. If that results from treatment, that is better almost than you can get.

We, ourselves, some years ago, simply said that if it is a 10 BOD effluent, it is good. So, we wrote permits that way.

MRS. STEWART: I believe the permit was for 12.

MR. YANTIS: Twleve or whatever it was. I picked the figure at random. It was a good quality for treated quality.

I believe we now know, if you get up into the plants and measure all the processed treatments independently of just dilution and get them treated, maybe you come out with a BOD of 3. Obviously, that is better. And this is what we are proposing to do.

I am not saying 3 is our number, but it is a case of taking what appears to be an excellent quality so far as BOD is concerned.

Of course, they do have the silt problem from the minerals which are settling out. And this of course also is going to be limited most severely.

But we just think we can take what appears to be a good quality and make it better because there should not be a credit given just for dilution. We didn't used to think that way, but we do now.

But anyhow, I think that when the answer is reached, which, at least on paper will be fairly soon -- there is some construction to be done; there are some other plants within Dow which are independent companies and they also have got some treatment to do -- but when the answer comes out, I think that the overall quality problem will be satisfactorily solved.

One last parting comment about moving Houston Lighting & power Company around. We have found after 10 or 12 years of experience in locating sewage treatment plants that the only correct place is next to someone else's house. (Laughter.)

CHAIRMAN STEIN: Right. Well, again, let me just make a very brief comment, Mr. Yantis.

You probably have joined the issue. I think the Federal people are going to have to be persuaded that dilution is all right sometimes in a plant with this kind of treatment. If you dilute -- it is all right -- like if you mix it with cooling water, or put it in a pumping stream, or just adroitly put it in. This is a technical problem. But I am making this comment for the record because I can safely say that the Federal people have been approaching this on a different basis.

MRS. STEWART: Thank you.

It is our position that generally dilution is a myth. This stuff is going to appear somewhere in the food chain, so source treatment extended far beyond where it is we feel is absolutely necessary -- recycling, whatever.

Back to some earlier statements.

As to these legal notices, that final statement has not been seen in any legal notice I have seen printed in Brazoria County previously. Again, I repeat that I am happy to hear this. As to the technical staff, we concur with HEP's statement yesterday. We think the technical staff of the Water Quality Board is excellent. And we are sorry to see their funds for doing proper testing were not granted by the legislature, because, believe it or not, we did lobby for this.

As to the other plants in the Dow permit, I think this is a very pertinent item within the Dow permit. Dow is very careful to talk about Texas Division, whom they consider only Plant A and Plant B to be. This does not generally when they are giving statistics refer to Oyster Creek, Dow Badische, Lavino, Alco, and A. P. Green, and Shell -- who also operate under the Dow permit discharge into the waste canal, and either buy products from Dow, service sources of power to them, or perform some other function Dow feels is necessary. Or they wouldn't have come in there on Dow's plant, and built their plant, and been allowed to discharge into the Dow canal system.

MR. YANTIS: Well, it is about coffee time. But, again, one last bit of technical stuff.

Remember, Mrs. Stewart, we are dealing in the overall sense with what one of the people yesterday called a biosphere. In that sense, treatment itself is a dilution because it is all still here. It has simply changed form or become energy upon occasion.

When you simply drink a glass of iced tea with sugar in it, if you are just measuring BOD, it is going to have an awful high BOD. And yet it isn't harmful; it is a food. Most of the organic matter is a food. If you can get it in the right place, it is still a food.

So, you come back to the old, old definition of pollution, and if you cut away all of the legalisms, it is simply material in the wrong place.

So, treatment sometimes is needed. Sometimes you don't. It just depends on what you are doing and where you are.

But yet it is all going to reappear again someplace, because the only thing we receive is energy from the sun; the rest is what we have got.

MRS. STEWART: Would you like to drink a glass of ice water from the Brazos effluent?

MR. YANTIS: I wouldn't especially. Some people do it for a stunt.

MRS. STEWART: I don't think anybody does.

MR. YANTIS: They drink effluents to show how good they are. It is probably as good as what some people drink at parties.

Anyhow, let's take a break for the reporter here until about maybe 5 after.

CHAIRMAN STEIN: Let's try to be back at 11:00 if we can.

(A brief recess was taken.)

CHAIRMAN STEIN: Let's reconvene.

The next speaker is Dr. Marrack. I had his first name. It starts with a "D." I don't know if that is David, Donald or what. But, Dr. David Marrack, who is a physician and pathologist in Houston.

DR. DAVID MARRACK
BELLAIRE, TEXAS

DR. MARRACK: Mr. Chairman, fellow polluters, unfortunately --

CHAIRMAN STEIN: May we have your name?

DR. MARRACK: You want my name?

D. Marrack, M-a-r-r-a-c-k. I live in

Bellaire.

CHAIRMAN STEIN: What is your first name?

DR. MARRACK: David.

There is only one in the country and 10 of us in the world, so it is very safe.

You can't live in Western society unfortunately without being a polluter.

Before I go on, I would like to make some comments on the construction of this meeting, because I think there are aspects of what is supposed to be a public meeting which could be, with advantage, looked at.

Obviously, as here, you will have meetings elsewhere. One of these I think ought to be evening sessions, say 6:00 to 10:00. Possibly even foregoing the morning session simply because it is supposed to be for the public, and the public, most of it, works. People who are endangered and are involved really basically in the pollution problem are the everyday working people, and he cannot attend the business hours these meetings are run. I have experienced this in trying to get to some of the meetings here.

Another point. I don't personally feel, in having been involved in running conferences in the past, that one should give whole sessions to 1 or 2 supposed principal parties. There should be equal treatment and the various groups involved should be interspersed, so that you don't have these sorts of situations we have seen in this meeting here.

Again, I believe it is quite possible to provide some general scheduling so that people have some idea which day they might be going to appear. This is not beyond the wit of man to achieve.

Mr. Yantis, I think it would be very nice if the specific and technical information about various applications for waivers of restraint or the addition of pollutants being put in, effluents polluters can put in streams, be placed in public libraries where people can easily get hold of them. And this might solve some of your problems of having been requested to supply them to private individuals or groups. If they were in the public library -- and I don't believe they are directly sent there automatically -- this would be a tremendous help.

And the final point, and this was brought up by a young gentleman yesterday afternoon, it is my contention that part of the public distrust of the management of pollution control -- and some consider the word "distrust" emphatically strong -- is the backlash of the secrecy surrounding that. And I don't mean they do it entirely behind closed doors, but the lack of information, if you will, about the plans of industrial plants when these have obvious environmental impact. I think that these plans ought to be brought out into the public long before they get to the stage where they are like blind documents and where it is very difficult to change them. In an early discussion of the environmental problems, it would save both the companies in updating their plants at a later date and also the community, as a whole, a great deal of cost and time and effort.

For instance, we had some difficulty in getting ahold of the Copeland Report. In fact, I didn't know it existed. It related to the Houston Lighting & Power Company's plant. This seems to me a very sad reflection on the problems that are going on around the Gulf Coast in its total sense.

Rating the Houston Lighting & Power Company, it is one of the aspects of their testimony, as I understand it, or evidence they presented, on the study of the damage of heat shock to larva and other small living things in the water going through all their effluents. And as I understand it reading that which has been available to me, the main activities are sample the water, then count the number of various species present whether they are alive or dead.

I sumit this is a totally inadequate way to study effluents in a biological system. It is not a question of is it alive now, but is it able to reproduce later in several generations. This is the test. We are considering dynamic biological self-sustaining systems. In that case, you have to have a reproduction going on. Heat shock kills and interferes with the fertility of many species.

In fact, it was used at one time I understand to sterilize the neon tetras -- you know that attractive little tropical fish -- by the breeders, so that the fish they sold couldn't be used by others as a breeding stock and put them out of competition.

So, there is a general principle there. Heat shock can sterilize and therefore interfere with the reproductive biological cycle.

We have heard a lot of fine presentations here, giving a lot of data in ppm which sound awfully good until you multiply by the volume of effluent in millions of gallons being discharged.

In fact, we also have the problem of giving an average content. I draw your attention to the fact that if you have a little capsule of cyanide and swallow it, each of you gentlemen will die very shortly. But if you average it over your daily intake, you will be fine.

Of course, it had already been admitted that these short, sharp shocks are lethal. And it is essential that not only the effluent be mixed all the way through -- there be no stratification, etc. -- but also when it goes into the larger body of water that it be mixed. And I think this is one of the problems that is going to arise with the outflow of the Houston Lighting & Power. You have got both thermal and specific gravity problems in stratification, apart from the wind and weather problems, and we know exactly where it is going to go.

Tuesday afternoon, I think it was, I believe the gentleman was Mr. Whittington, and he discussed the oil and grease content of the outflow of many of the refineries. I worked this out.

It turns out to be -- if the acoustics of the room were correct -- 6 tons of oil and grease per day from the refinery effluents, and one wonders exactly where does all of this go.

In these data it is rather interesting that the commercial companies, which they were trying to discredit the Environmental Protection Agency's data, they used data of late 1970 and early 1971. And of course those of us who have been in the military recognize the whitening of your hat, and you know the fake and the fast that precedes the inspection. And of course the data given by the companies was completely irrelevant to the data reported by the EPA taken some considerable time before.

In fact, where were those companies' data for 1967 and 1968? Are they ashamed to present those here?

The question also is where does all this material go?

Concentrations in the bay are a consequence of a dynamic system and depend on the amount put in per unit time and that removed in the same time.

Dr. D. Marrack

We have all the data about the input validity or invalidity, but partically no data about the output, and no data that would seem to be significant on changes in concentration going over a significant span of time within the bay.

Some claim was made about rapid degradation of hydrocarbons by biological systems. But this claim is not consistent with oil being a widely distributed fossil or the fact that we use it to preserve wood and put it on our roads and put it on our roofs.

Further the testimonies of Hunt, J. M., Blumer, M., Sanders, H. before the Senate Antitrust and Monopoly Subcommittee, August 1970, Washington, D. C. -- I trust the conferees have or will examine these 3 reports and that they be considered included in the proceedings of this hearing -- Dr. Hunt presented evidence of insignificant degradation over 8 months for the materials from an oil spill in natural conditions, as well as their toxicity to marine flora and fauna.

The pollutant concentration in living

Dr. D. Marrack

things and thus in part their toxicity, is determined by the chemicals' solubility partition coefficient. This often results in a buildup of 10 to 1,000 times the original concentration in the living organisms.

I would like to bring up one further caution. You know oil components have been known to be carcinogenic for many years, when applied to the skin. I know of no significant data on their effects through long-term low-dose ingestion in seafoods, but it is a good bet they will join benzidine, napthamines, and nitrophenols which trigger bladder cancers, in taking a carcinomatous revenge on man somewhere.

The full consequences of oil pollution are not yet realized. But the conferees should examine the experience in the Caspian Sea over the last 10 years, where a drastic fall has occurred in basic aquatic food (the phytoplankton) and thus the harvestable fish supply due to oil operations there. I think the report of the Ministry of Agriculture and Fisheries on the effects of the Torrey Canyon disaster also should be reviewed and are pertinent.

Because the two between them give some prognostication of what happened in acute and low chronic exposure to the products of misplaced oil.

Human sewage is another problem. There has been much ado about chlorination and its use in plans to year 2,000. Yet do we want huge quantities of chloride and toxic chloramines, etc., in Galveston Bay?

These things, the chloramines and other organic compounds, are not harmless materials and are well recognized as drugs and as toxic agents.

Further, we have got, as we pointed out yesterday, the very significant problem of the sewage from commercial shipping in the Galveston Bay and the Ship Channel. And these are not just a local problem itself but a national problem, Mr. Chairman. And it should be that some standards and management should be applied uniformly throughout the country on a Federal basis, and it should be enforced on a Federal basis.

The only way to do this fairly -- and I think this is one of the reasons for welcoming Federal assistance in this matter of pollution -- is to get a uniform application across the country on a common standard.

This, of course, has the important aspect that it prevents the flight of industry, which they threaten to go somewhere else. Of course, I think this is a pernicious blackmail and nothing else.

Of course, the Ship Channel has been a tremendous economic help to this area over a number of years. But possibly you could regard this as a mortgage, a commitment by society to give you a leg up for a time being, but it is time now, I think, to recall that mortgage loan.

Of the various uses of the bay, that of a dying biological degradation, it seems to me to have zero priority. One of the assumptions in many of the presentations is that these additives to the bay from industrial effluents are diluted to such an extent as to be insignificant. Now the only dilutant coming into the bay is the water from the rivers emptying into it.

It seems to me very little consideration in all the projections being made is being given to the combined effect of such things as the Wallisville Dam in this diluting process, and the changes planned in the whole of the Trinity River. The Texas Water Development Board plan, as in their publication, proposes to reduce the river water inflow into the whole Gulf Coast to 3 x 10^6 acre-feet per year. At the present time, the current river discharge into Trinity Bay alone is 7 x 10^6 acre-feet per year. In other words, there will be greater than twice the reduction of the proposed plan of water coming into the Trinity Bay, due to all the water that is proposed by the Texas Water Quality Board, and put it in Trinity Bay where it is going to be distributed down the Gulf Coast.

It will change the salinity of the bay and therefore the ability to produce young fish and shellfish, as well as all the crustaceans which are unable to breed with the salinity too high.

On top of this there is a proposal by the Corps of Engineers which believes that the environment will be enhanced by a hurricane wall across Galveston Bay impounding all of this effluent in the bay.

Dr. D. Marrack

It seems to me the current problems of the Baltic Sea in this respect, which is a similar sort of enclosed water where a large number of communities are putting their discharge, will be relevant in this situation.

Of course, also one has to recognize that the Gulf of Mexico itself is a somewhat-enclosed recycling body of water and isn't really open ocean.

I think, sir, it is very important that the conferees consider the environmental impact of these effluent -- proposed effluent standards -- of the proposed massive changes in the bay's hydraulics, and they need to be considered carefully in setting standards for discharges all the way through the Galveston Bay catchment area.

Gentlemen, one more aspect of the human sewage. If typhoid bacilla were recovered from the effluents of the sewage plant, there would be one hell of an outcry. Yet, recently it has been observed and documented in several publications, by Wallis and Melnick, from the Baylor College of

Medicine, that wild-type viruses are not destroyed by current sewage treatment. They can be found, in fact, in the discharges into our bayous around this city at the present time, because these viruses are no less able to produce diseases in man than typhoid.

I think this matter needs to be carefully considered in the future of our society here, and throughout the rest of the country for that matter.

I would like to make a comment to the proposals to be made for deep well disposing of pollutants. It seems to be assumed that, first, there have never been earthquakes in this area, and that is not true. Of course, they think they are liable to break the cap rock covering these deeper aquifers and the leaks will occur. Further, there may be a time when they want to use the aquifers for increasing population in this area.

Very little has been said of the future need to reutilize the valuable raw materials in our sewage. They are for particulrly food production. You know there are a lot of phosphates and nitrogeneous materials that are awfully good fertilizers. We buy them at good expense.

We face in the life span of the plans that have been projected here the situation of massive world food shortage, and yet we have the raw materials to greatly enhance food production. It seems to have been forgotten largely.

The food production capacity of shallow waters, if there was some freshwater coming into them, exceeds that of arable lands by some 5 to 20 times.

In fact, there was -- I don't know if it is still operating -- a plant in Java which was providing it is claimed 500 metric tons per hectare, which I think is about 2.5 acres. And that is a great deal more than any arable land has ever produced.

So, I think we ought to consider in our planning methods to increase the food production from our materials, and also utilize other raw materials. I point out that Calcutta, India, is a long way ahead of us in this particular respect. I think we have an awful lot to do.

I submit that top priority in the multiple usages of the bay should be given to food production, seafood production, and maybe other food production later.

And if the various agencies involved will stop bickering like little children -- and in the words of Winston Churchill, "The enormity of the problem speaks for itself" -- and, in the vernacular of today, "Get with it."

Thank you. (Applause.)

CHAIRMAN STEIN: Thank you, Dr. Marrack.

MR. YANTIS: Well, Mrs. G. O. Miller was here yesterday. I believe she said she did not wish to come back and speak, everything having been said.

Is this right or not? (No response.)

She is not here.

Miss Jody Duek of the Sailing Club. Is Miss Duek here?

MISS DUEK: Yes.

CHAIRMAN STEIN: You don't have a copy of that for the record, do you?

MISS JODY DUEK

SECRETARY, THE CLEAR LAKE SAILING CLUB

SECRETARY, THE HOBIE CAT HULLRAISERS

HOUSTON, TEXAS

MISS DUEK: I know I did.

I would like to provide a little bit of a -- my name is Jody Duek. I am the Secretary of 2 Houston sailing clubs -- the Clear Lake Sailing Club and the Hobie Cat Hullraisers -- and a member of another local club.

I would like to provide a contrapuntal note to these hearings, by speaking on a less technical, more personal level. As the Secretary of 2 Houston area sailing clubs, the Clear Lake Sailing Club and the Hobie Cat Hullraisers, and a member of another club, I feel I can speak for some 300 plus sailors specifically, as well as the rest of the boating and recreational community in general, when I say our boating areas, and Clear Lake particularly, are a disgrace. I have sailed on both coasts, and in the Gulf of Mexico from Mexico all the way around through the Intracoastal Waterway to Miami, Florida. Without a doubt, Clear Lake is far worse than anything I've seen anywhere. And the rest of our waterways are not far behind.

Recreation is an important part of life. When one moves to a new area, one of the most important items considered is sports and recreational facilities. Water sports are a growing part of life in the Houston area. But not if the water is dirty looking, foul smelling, and littered with fish ... floating bloated, bellies up.

Last spring, a group sailed from the Houston Yacht Club for a picnic on a nearby island. The stench quickly drove us back to our boats.

The beaches are no better. We sail off Galveston Island about once a month. And spend the next 2 weeks scrubbing the tar and oil from boats, clothes and feet.

When one of our small boats tips over in Clear Lake, the skipper is then branded, as he must sport what is euphemistically termed a "brown-paneled" sail. Mere water is not sufficient to erase this stigma, either from the sail or from his skin, which is greasy to the touch after such an escapade. Both sail and skin must be vigorously scrubbed with a brush and heavy-duty detergent. Our solution for the ever-present danger of a slight cut or scrape -- immediately leaving one prey to heaven only knows what myriad of infections -- is an immediate alcohol bath. Beer will do, but, last weekend, vodka was used in an emergency situation.

Other problems on Clear Lake having to do with water quality, marginally at least, are water noise and water safety. There are racing powerboats who practice almost daily on Clear Lake. They use megaphones to amplify engine noise, and delight in "buzzing" sailboats and water skiers, flagrantly ignoring speed limits and rights and comforts of others. They are unanimously hated by the rest of the area population, because of their noise and arrogrance. They are a proven source of thermal pollution -- at least among their enemies -- we get pretty hot under the collar.

The effluent pouring forth into Clear Lake may be easily seen by anyone who cares to look. Raw sewage, or next to it, is openly dumped into Clear Lake next to the Kemah Bridge on Highway 46. You may easily find it by following your nose. At the other end of the lake, a foamy sludge spews forth into the lake from near Joe Singleton's boat rental. I have been told this comes from Houston Lighting & Power, but have not been able to verify this statement.

I invite the disbeliever to look for himself. In Clear Lake you will find all of the above-mentioned violations of human decency. You will not find a single water plant of any variety. I defy a cynic to attempt to wade in Clear Lake. You will find yourself in 2 feet of water, and another 2 feet of indescribably foul muck.

Contrary to popular myth, neither the Texas Water Quality Board nor Protein 21 can solve a problem by saying it can. Being a legend in your own time requires doing something to solve your problems -- not sponsoring commercials or lobbyists saying you've done it.

CHAIRMAN STEIN: Thank you. (Applause.)

MR. YANTIS: Shelby Bryan, who spoke yesterday, would like to read a citizen's statement. The citizen was here most of the week and could not be here today. So Mr. Bryan, if you will read his statement please.

MR. EMMANUEL: I have the statement.

MR. YANTIS: I am sorry. Victor Emmanuel.

DR. HENRY HILDEBRAND
UNIVERSITY OF CORPUS CHRISTI
CORPUS CHRISTI, TEXAS
(read by Victor Emmanuel)

MR. EMMANUEL: Dr. Henry Hildebrand is a marine biologist. He is presently Professor of Biology at the University of Corpus Christi. His research interest for 20 years has been shellfish and finfish along the Texas and Mexican coasts. In 1960, in Mexco, he found the nesting ground of the Ridley turtle which was not previously known to biologists. He is currently working on the effects of pesticides on fish-eating birds.

Dr. Hildebrand was recently appointed as a member of the Board of Directors of the Texas Conservation Council.

He regrets that he could not give his statement in person. He attended the hearings all day Tuesday and Wednesday, but had to return to Corpus

Christi Wednesday night.

[The statement of Dr. Henry Hildebrand follows.]

We want to commend the Environmental Protection Agency for holding this long overdue conference in Houston. We think that if it has done nothing else, it has caught the attention of the Texas Water Quality Board and made them defend their policies and explain to Texans why they have failed to enforce their own water quality standards. We would hope that EPA will also hold hearings in Freeport, Port Lavaca, and Corpus Christi because we believe that significant problems are being ignored by the Texas Water Quality Board.

We contend that the different agencies are supposed to operate under our governmental system of checks and balances. After hearing the sweetheart statements of the FDA and the Texas Board of Health, the independent analyses of EPA are most welcome. These recommendations should be thoroughly reviewed by the Texas Water Quality Board before being so roundly condemned. We further contend that 1/2 the bay closed to oystering is an intolerable situation, despite the Parks and Wildlife Department ambivalence over the years as to oyster producing possibilities of this area. We would also ask where are the analyses for oil and hydrocarbon residues in oysters from the State agencies? If Texas has data to refute Dr. Blumer and the State of Massachusetts, let the Water Quality Board produce them.

The economic health of the seafood industry in Texas requires that its products be accepted in the Nation's markets without question as to their purity. For years Galveston Bay oysters have been marketed as Louisiana oysters. A period of closure of Galveston Bay for review and strengthening of procedures relating to the shellfish harvest would be beneficial to the industry since it would restore public confidence and improve the marketability of our oysters.

That is Dr. Hildebrand's statement.

CHAIRMAN STEIN: Thank you.

MR. YANTIS: Wherever Texas oysters are marketed as Louisiana oysters, there is an obvious reason for it. In the trade there is a proverb or sales slogan that says, "Eat Texas oysters and live longer; eat Louisiana oysters and love longer."

(Laughter and applause.)

A student, Mr. Mike Noblet.

Noblet, actually; I am sorry.

MR. MICHAEL W. NOBLET
U. H. EARTHWORKS, INC.
HOUSTON, TEXAS

MR. NOBLET: I am Michael W. Noblet.

Mr. Chairman, conferees, ladies and gentlemen. I understand that this conference is held to enforce or to clean up problems that exist in the Houston Ship Channel. I'm meaning to say there might be malfeasance in enforcement on State and local levels.

At the hearing, I think it was Tuesday, I was very disappointed to see, after Mr. Fulcher and Mr. Yantis presented their statements, that the representatives from the EPA were trying to modify their stance, and it appeared as if we really didn't say what we said the day before.

Well, obviously, the problems on the Ship Channel and Galveston Bay and the Gulf of Mexico, and resultant therefrom, are very serious. And the industries on the Ship Channel are fouling it and are in violation, and something has to be done about it. So, rather than spending hours reading all facts and figures, I will say that I hope that this conference does result in more than just a lot of people standing up on both sides of the fence and presenting their positions, and the status quo continuing, but rather that something positive results from this. Possibly some sort of future policy will be developed for the whole country, for each watershed, each bay complex that is effected by Western man, technological man; that policies will be developed where the Federal Government and the State government and local government work together as a team to solve this problem.

I guess, in closing, I can say if there is no problem in the Houston Ship Channel and Galveston Bay, then how come when you go swimming on

Galveston Island you come out of the water and you smell.

Thank you.

CHAIRMAN STEIN: Thank you.

MR. YANTIS: Mike, I think you have saved me the trouble of making a closing statement.

I agree with everything you said. I do think that it is important that we all work together. It is equally important though that we do it from a base of correct information and full and open discussion.

But what you have said is what we believe in.

CHAIRMAN STEIN: I would like to just make one comment. I noticed you used the word "malfeasance." No one, at least from the Federal side, came down here charging malfeasance on anything. I wish that there were another way to get at the problem without going through the facts and figures, but I don't know of any. I really don't believe there is another way. I think the physical situation is there for all to see. I also think that you have had the industries, conservation groups, State, Federal people come in with figures, and they were all talking about the same thing and all trying as best they could to be honest.

There was no malfeasance there in putting this on because these could be checked. However, we can't proceed to get at the problem in cooperation unless we all know what we are talking about and understand each other. We just have to go through this process to do this. This is a long one. It is laborious. And sometimes, if you sit here, maybe some of you that don't work with it might think that it is awfully dull.

That is what you have to do. There are no shortcuts. That is the trouble. If you attempt to shortcut it, you are going to take longer in the long run. That is what we don't want to do, and that is why so many of us have spent these long hours here this week, trying to get every fact we can out on the table.

Thank you.

MR. YANTIS: One thing that I have noted -- and all with equal integrity -- there are people who say, "Stop studying and start working."

There are others -- and this has happened here -- who say, "Don't do anything; you haven't studied it enough."

But, a man came up to me deadly serious one time -- not here, but up in Austin -- an intelligent man, and said, "Why do you have to study these things? You should already know them. Didn't you go to school to learn them?" (Laughter.)

It is kind of frustrating though when you do try to persuade somebody that you must investigate a problem before you even know what you ought to be doing. Some people simply don't understand that. Some people don't even believe in what I am doing, but that is another subject. (Laughter.)

Mr. Hall. I have forgotten his first name. I have lost it. I had it written down.

VOICE: John Hall.

MR. YANTIS: John Hall wishes to make a statement on injection wells.

I have told Mr. Hall that in my view a technical discussion of injection wells was outside the call of this conference, but, as a citizen, Mr. Hall has the right to make whatever statement he wishes to make. So, he will make a statement on that subject.

MR. JOHN HALL, SR.
WEATHERFORD, TEXAS
EDMONTON, ALBERTA, CANADA

MR. HALL: I am John Allen Hall, Sr., from Weatherford, Texas, and Edmonton, Alberta, Canada.

I have for some 35 years been in the business of the prevention of fluid and gas migration. At one time I was only one of 2 men working in this field. Now then, we have some 20 odd companies. So, I am not here speaking for my company alone; there are a lot of competitors in this business also.

On this matter of injection wells there are a lot of wells that you people haven't realized are injection wells.

In the State of Texas there is not one single city which has cementing regulations, sealing regulations, testing regulations for their water wells, which will prevent the drainage of sewage overflow from leaky sewer pipes, from septic tanks, or cesspools, sidewise over to these wells, and down the outside of the casing, and into the water zone, and back up through your drinking spouts. It is easy to check these wells out and prove it.

So, whenever you are thinking about injection wells polluting, just remember we have a lot of wells that are designed for polluting your water across the State of Texas.

In my work I want to mention that primarily in the earlier days we went to work on the prevention of the vertical migration of fluid and gases on the outside of the casing. In this work we also protect and prevent the vertical migration of various types of water too.

Here on July 17, 1969 -- I feel this is important because I should wish you would know the dedication that many of us have put to the saving of water supplies here in this area and other areas -- I was called upon to write an invitation of welcome to the Governor of Texas to the Klondike Days in Edmonton, Alberta, Canada, and this is the way I welcomed him to the Klondike Days where he spoke.

I said:

"Honorable Governor,

"The grandest flag of Texas is planted forever here in Edmonton, Alberta, Canada. One handful of Texas soil was premanently scattered in 1958 on 4 acres of land here in an industrial part of the city. On this formidible foundation grows our company dedicated to the protection of natural resources.

"Transplanted from a location on the south side in 1958, the plant was originally established in January 1953, as the first oil tool factory in Canada.

"Your Honor, you should rest more proudly when you learn that as long as man reaches for oil that handful of Texas soil will be looking up to see the men and women of Weatherford, working to get more oil out of the ground more easily and more safely.

"But prouder yet you should be to know that as long as man walks on the earth, long after the oil is gone, that handful of Texas soil will watch the great fresh water zone here, so ably protected with cement jobs, staying clean and fresh so that they will succor well the needs of life for all time to come.

"Therefore, Honorable Governor, when you come to Edmonton for our Klondike Days celebration, I invite you to tip your hat respectfully to the everlasting flag of Texas that is so honorably planted here.

"May the land we use always be in the morning of its moisture and we always in the morning of the wise use of our resources wherever Texans go."

CHAIRMAN STEIN: Mr. Hall, you said you wanted 10 minutes. Is the statement that you just read coming out of the 10 minutes?

MR. HALL: Yes. I will move on into my main statement.

I wanted you to know that there are dedicated people in this work.

It is rewarding to be one of the last speakers at this pollution conference. I have the advantage that hindsight adds to judgment. Therefore, I look with optimism to the future, for I have heard here of no problem which I feel is not solvable, whether it is political, chemical, or physical. I make this judgment as one who has made solving problems for others in the oil and water-well industries across the length and breadth of our continent, and in other lands, into an internationally rewarding experience.

It is 35 years now that I have worked in the preventing of vertical oil, gas and water migrations. That is the elimination of pollution from commingling in all of its phases, including blowouts on the outside of the casing and the well-head and the "Christmas Tree."

In this work, we have contained very high pressure hydrogen sulphide gas that is so poisonous that one deep breath of it will kill you. In other words, already deep down in the ground in many Texas areas, we are working successfully with gases infinitely more dangerous than any possible pollutant you now have in the Houston area. Much of this poisonous gas is above 10,000 pounds in pressure.

This highly technical work involves the correct placement of the cement in the well around the casing and at the same time, making it, not letting it, bond to the well casing and the well bore. Such positive bonding seals all fluids or gases within the zone of confinement and will not permit them to flow vertically up or down.

Gentlemen, it is with this type of cement job that I hope to save much industry in the Houston area and across this Nation, by establishing disposal wells in zones that would be set aside and protected by correct regulations for this purpose.

Now here is where I need the help of the Federal Government on federally-supervised properties. Many of our virgin sites for this purpose will be on lands under their supervision.

If such protected sites cannot be set aside for use when private industry needs them, then, gentlemen, we cannot move forward with all the tools which we will need in restoring the waters of the Houston Ship Channel. Galveston Bay, and other areas to something near their original freshness. America needs the regulations and preocedures for such protected sites and your approval of safe underground disposal.

The EPA may be well aware of many grave cement failures, perhaps even several thousands of them which the cheapest bidder, without adequate experience, have done for our government. If such failures have soured the EPA on disposal wells, I can well understand. But that work, I am well aware, was not done with planned excellence as the target.

Much can be done with perfectly bonded disposal wells. There is no substitute for cement jobs of excellence. A time schedule can be met for ending pollution. Recycling can be carried on and the polluted water may also be treated at a later date when practical. In no case can it ever be more poisonous than the hydrogen sulphide gas that underlies so much of our Texas and which we can contain so well.

I have every confidence that if the pollution problems of this area get the ball rolling on regulations for the use of correctly cemented wells in disposal zones, we in our industry will be able to save many thousands of factory jobs across our Nation.

But, if you fail to do this, we will be out of business in a most important phase of our work. Then gradually those who have very real pollution problems which they cannot solve soon enough will be out of business entirely, when they could have been saved so easily by your timely and thoughtful consideration.

Gentlemen, this important phase of my industry cannot become the first casualty of this conference. It must be permitted to grow with your infinite blessing.

If the Federal Government takes the lead in this area, I believe that the States can be caused to follow soon after.

CHAIRMAN STEIN: Thank you, Mr. Hall.

MR. YANTIS: I have listed only 2 more speakers. Mr. Weldon Gamble has asked for 10 minutes for the Corps of Engineers. Dr. Nugent Myrick of the University of Houston. If it is only those two speakers, we will probaly adjourn at noon.

Are there any other people who would expect to speak besides these two? (No response.)

If there are not, I think we could schedule it on that basis, Mr. Stein.

CHAIRMAN STEIN: Right.

Let's proceed.

MR. YANTIS: Mr. Weldon Gamble, and following him will be Mr. Nugent Myrick.

That will take us probably until 12:15. If the stenotyper can stand it.

MR. WELDON GAMBLE
CHIEF OF CONSTRUCTION, OPERATIONS DIVISION
GALVESTON DISTRICT, U.S. CORPS OF ENGINEERS
GALVESTON, TEXAS

MR. GAMBLE: I am Weldon Gamble, Chief of Construction, Operations Division, Galveston District, Corps of Engineers.

We did not plan to give a statement. However, I have heard so many remarks about the Corps of Engineers that we felt it would be beneficial to speak just very briefly.

I am not here to try to defend the Corps of Engineers environmental record. To use a bad pun, it stinks. We realize this. I am here to try to explain why this happened and also to make a few brief recommendations on what we can do in the future.

As to why it happened I think we can go back to the remarks that one of the people from HEP made. He said, "I represent the people." I wish that all the various agencies could say this with the same degree of certainty. We are by law delegated this authority -- all the local, State and the Federal officials. We are working for the people. Now we don't pretend to be geniuses. But if we were geniuses we would not be here, we would be next door. (Laughter.)

(Referring to MENSA meeting.)

But I submit that most of the problems in connection with pollution, as are most of the problems that we have in any area, are not the result of some diabolical scheme -- that we, as Federal or other officials, or the industries, are out to rape the general public.

I contend that most of the problems are like those you had with that projector this morning. I don't think that anyone sabotaged the projector, Mrs. Ginzbarg, I think this just happened.

But a very good illustration of the way the public has influenced the Federal policy is this Refuse Act of 1899. We have been raked over the coals for not enforcing an Act for over 70 years. Mr. Stein did a better job than I can ever do explaining why it was not enforced. But even today there is some question in the courts whether this law pertains to everything that we intend to use it for. This is a reflection of public opinion. This is what has happened for 70 years.

We interpreted the law one way, and all of a sudden it has changed. But this is one of the problems.

I would recommend -- this is primarily directed to conservation and environmental people -- several things here, and the first is to get into the act early.

I have heard several people mention that hearings such as this should be held at night. Speaking for the Corps of Engineers, we intend to do this. We have already started, and I think the other Federal Agencies will be doing the same thing -- insofar as possible, we will conduct meetings at night. But then you wonder. I was only here 2 days, although we had other representatives from the Corps here. I was here yesterday and there were probably twice as many people in this hall on a work day as there are today on Saturday.

You said, "no publication?" It was in the papers that there would be meetings, so where are all the people?

But, nevertheless, the Federal Agency and probably the State and local agency as well, I feel will use night meetings more and more. Certainly we will.

The next recommendation or comment has to do with wasting your time on minor or impossible demands.

We, again, not being geniuses, are not able, or at least I will speak for myself -- I just completed a course in speed reading, but I still am unable to read everything that crosses my desk, and I am a very minor official. Now I can imagine the problems some of the other officials much higher up the ladder have.

You have probably submitted maybe a ton of what may be pollution someday, at this hearing. There are volumes of paper. You reproduce this several hundred times, and there is no point in just getting a lot of words in.

The other thing that I am talking about

under this recommendation is don't waste your time on impossible demands. We all like to think of ourselves as very powerful -- that we can do miracles. But the plain truth is that we can't.

Don't ask a Federal Agency -- don't ask the Corps of Engineers to enforce a law that the court will not allow us to enforce. Don't force us into court on something that we cannot win. Don't force us into court on minor things because this takes a lot of time.

The comment has been made several times "Damn the torpedoes, full speed ahead." Not those words, but this is what is meant. "Get into court."

What surprises me is that some of the people making the comments were lawyers. If you ever "get into court" -- you talk about something that moves slowly -- the court action moves slower than even most Federal officials. (Laughter.)

One passing comment along this line, Mrs. Ginzbarg mentioned this morning about the Corps of Engineers and our authority under the 1899 Act to stop certain activities on navigable streams and their tributaries.

The law, as we interpret it, says that we can enforce Section 10 of this Act on navigable streams only.

Section 13, upon which our new permit program is based, allows us to enforce the Act on navigable streams and tributaries.

Now this includes a lot. Now the problem with defining "navigable streams" is the fact that no one has.

We have a regulation. And if you read the first paragraph it is very clear. But if you read the second paragraph you become confused. And if you continue reading you will decide that no one knows what a "navigable stream" is. So, I will agree that the determination of a "navigable stream" is rather arbitrary.

The courts have attempted through the years to determine what is a "navigable stream," but every court case is a little bit different.

So, consequently, we -- that is the Corps of Engineers -- have rather arbitrarily defined certain areas of certain streams as being navigable. They are not really arbitrary. They are our interpretation of the law. But we do realize in the final analysis that some final determination has to be made.

Whenever there is a point of contention along these determinations, it will get into the courts, and eventually after several years it will be determined whether we were correct in our interpretation or not.

But if we were to extend our reaches of areas of navigability every time someone wanted us to do so, in order to accomplish one of our purposes, there would be mass confusion.

We have to maintain some degree of stability so that planners, so that developers, can have some basis for the plans.

I am about through. I would like to end this on a little more positive note.

All this mention of the Refuse Act of 1899, and there has been very little said about the new permit program.

This is a joint effort of various Agencies from the Federal side -- it is primarily EPA and the

Corps of Engineers -- our participation in this law is because we have the statutory responsibility for it.

EPA will furnish the technical guidance. We intend to follow their recommendations.

As far as water quality is concerned, I personally feel this is the best vehicle that anyone has ever come up with for improving the environment of water. I do not feel that this is a cureall. I do not feel that this will be done tomorrow.

Talk about the credibility gap, I think part of it is the fact that you people sat here and made these remarks, and we as Federal officials sit here and by our lack of response indicate that we agree with them.

The Corps cannot even begin to handle the paper, even just shuffling the paper. It takes time. There are literally thousands of these permits that have to be applied for and approved or disapproved. This does take time.

I am reminded of a NASA definition of a "crash program." It is the practice of getting 9 women pregnant in the hopes of getting a baby in 1 month. (Laughter.)

Now this will not work for pollution matters.

CHAIRMAN STEIN: Thank you.

After that talk, I am just going to have to say one thing about "navigable waters," because while I was in the Army for 4 years at one time, I know we did everything by regulations.

In the EPA, we do take the court decisions and the Supreme Court decisions of what "navigable waters" mean, and we think we know what they mean. I think substantially Mrs. Ginzbarg certainly was correct this morning, and that is as good a definition as any -- "if it can float a log."

If a "navigable water," i. e., to float a canoe, or log, if you want to take it that way, was once able to be used commercially, or by a reasonable expenditure of funds can be made to be used in this manner, and you know what we in Washington think is a "reasonable expenditure of funds ---
(Laughter.)

--- So I think until you get these farm ponds or mountain streams under the definition we are looking for, we consider this is "navigable."

As far as the EPA is concerned, I also want to indicate that we consider no citizen's complaint too big or too small to be considered. We will exercise our full jurisdiction where they come in.

MR. YANTIS: Of course, Mr. Gamble did raise a host of questions that if we discussed it would take a great deal of time. But I would make the passing comment that if the permit system to be used by the Corps of Engineers is put into force, what then becomes of the permit system which the State has? If the Corps of Engineers will take the recommendations of EPA, then what happens to the judgment of the State? There is a whole area of decision here which could be debated. It is being debated in Washington now because these questions are disturbing a great many people. I think it requies no further discussion here because it would go on for a great length of time. And, again, we could not resolve it.

I would like then for Dr. Nugent Myrick, who is the last speaker that I have listed, to speak.

DR. NUGENT MYRICK
UNIVERSITY OF HOUSTON
HOUSTON, TEXAS

DR. MYRICK: Thank you very much, Mr. Yantis.

Chairman Stein, Mr. Vanderhoof, Mr. Yantis. I would like to just spend a couple of seconds reviewing with you some findings.

My name is Nugent Myrick. I am Associate Professor of Civil and Environmental Engineering at the University of Houston. I have been a student, and I have been a practicing educator in the field of environmental engineering for some 10 years. I would like to just toss out a little history.

The first secondary treatment plant in the world was at Houston, Texas. It was built in recognition of the solution to pollution that would potentially affect the Galveston Bay. The Northside treatment plant is one. I think it is wise we remember this as we comment on this meeting and close it.

Dr. N. Myrick

I think it would be appropriate for us to make a comment that I think the voters of Texas have recognized the values of the State of Texas water quality program, and that of the EPA and predecessor organizations, by taking and recently voting a 3 to 1 overwhelming margin on cost-share programs for the State, to match the Federal funds to solve remaining pollution problems.

As I said before, the Ship Channel was built and has made Houston. It has offered tremendous opportunity -- one of which was thrown out many times in our hearing this week.

Industry was brought here by our Federal Government for us to build critical products for our defense of our country in World War II. We have worked hard to magnify these and develop these. At the time we developed them, we probably had no resources to spend on pollution control devices.

I think basically, from the point of view of being an educator, I see evidence on both sides of the fence that will bring optimism to solving the remaining problems.

I think the conference, unfortunately, did not get a chance to hear and discuss the question of the conference at hand because of many reasons. I think it will become obvious in the record.

On the other hand, there is optimism we will see the solutions occur.

I would like to see us look more in the future to removing the history of pollution from our area. This history is the bayou and the Ship Channel, and probably aid in terms of new instruments of legislation in areas that I think many of our citizens have researched, worked on, and reported on here.

One obvious one is the erosion control program. Maybe this is a nice thing that the EPA might like to look into, and acquire the soil conservation services, I guess. It may be one solution of the problem.

That is not what I wanted to come up here and say.

I feel that we ought to be looking at those fundamental questions, because we must recognize that we have a strong program that has gone on for many years in Texas, to the point where we had secondary treatment in practically every city before the monitored pollution control came along.

We have seen these cities move ahead and government move ahead, sometimes over much deliberation, discussion, and personal irritation and frustration.

But the net result has been good. We have to look at the net results, I feel.

I would like to think we have enough trust in the present administrative system and potential administrative system that we realize the quality of water will improve, and that we cannot have musical chairs of all our industries in all of our cities.

We will probably have the Cedar Bayou plant of H. L. & P. and on the Brazos River, and probably on the Gulf of Mexico before we ever stop growing.

We might refer briefly to the article I read last evening in Business Week, one of the feature articles of the latest issue. It says, "The

Nation's Number One City in the Southwest -- Houston."

With the optimism that enterprise has and the people in Houston have, the pollution solution I think is forthcoming.

Thank you.

CHAIRMAN STEIN: Thank you. (Applause.)

[Whereupon the Executive Session follows.]

I think this concludes the statement of all the people who want to speak. Now is the time, of course, the conferees have to decide what we are going to do.

On the basis of the record as I see it, I would like to make a proposal.

I think we have a very complete record on a very complicated subject. We are also moving ahead with the program. Since we have been dealing with a very complicated subject, we have certainly had a variety of descriptions of the situation here. However, I am sure you will all agree they are describing the same thing. But in order to move forward meaningfully and in recognition of the State's program, the Federal Government, the State, the people in the area, the industries, and others interested in the program must all cooperate. Our law says, "The primary rights and responsibilities of pollution control rest with the State." We and the State should try to get together and come to an agreement on the data presented in a form which will be acceptable to the technical staffs on both sides. This will avert squabbles over data that might otherwise impede our coming to Conclusions and Recommendations to develop the program.

This, I believe, can be done in a relatively short time which the conferees should decide. I propose to meet again in Houston in about a month at the call of the Chairman. That would make it, as I calculate during the week of July 11.

In the interim, the Texas authorities and the Federal authorities should designate -- and we can do that here -- technical people to get together and come up with an agreed-upon statement on the data for the facts if that can be done. If there be no reconciliation, of course, this is something we will consider too.

Given that time, I think we will be further ahead and come up with a solution.

We have established a precedent for this technique in many other complicated problems we have encountered in various sections of the country -- notably in the Lake Erie situation, in the Lake Michigan situation, and in dealing with the thermal problems in not only Lake Michigan but various other parts of the country. We always have found this to work rather well.

Some of the simpler conferences have been such that solutions amenable to the conferees have been reached by going into an immediate Executive Session. But it is my feeling here that we would be further ahead if we adopted the former course, and I would like comments on that from the conferees.

MR. YANTIS: I tend to agree with you. But I would like to state that there are some things that we have learned and that at least I, myself, have decided on.

CHAIRMAN STEIN: All right.

MR. YANTIS: First, however -- and this is why I called my Deputy Joe Teller up -- I think 30 days is a little bit too quick when you think of the amount of staff time that has to go into the review of a report like this. It seems to me 60 days is a far more realistic figure. There are many conversations to be held and much work to be done. I don't think you can do it and do the other work in 30 days.

CHAIRMAN STEIN: Mr. Vanderhoof, may I hear from you just on the time -- unless you disagree with the whole approach?

MR. VANDERHOOF: I agree with the whole approach, but I favor the 30 days. I recognize the difficult job, Hugh, but I think we have to get with it.

CHAIRMAN STEIN: I don't think we want to be hard and fast on this.

Let us try to do this -- and I really mean this. Let me say, at least for purposes of planning, let's split the difference. We will think in terms of 45 days, but if we have not completed the staff work, I will not call the meeting because I don't think it would serve any purpose. I meant the same thing with the 30 days.

In other words, we will announce sufficiently in advance when we are going to do this and the staffs would get together.

I don't think we should hang on this issue of time, because either we have got our work done or we haven't got our work done. We will just be deluding ourselves if we come to another meeting and still squabble about data, because we are not going to get anywhere.

Both the Federal Government and the State must sit down and get it behind us before we can make meaningful judgments on where we are going.

Is that agreeable to leave it at that -- that after the technical staff is working for about 2 or 3 weeks, you will give us a prognosis and we will not call the meeting before 45 days. However, if we have to take the 60 days, we will take the 60 days?

MR. YANTIS: Yes. But I would like to still make my statement here.

CHAIRMAN STEIN: Yes, surely.

DR. QUEBEDEAUX: Mr. Chairman --

CHAIRMAN STEIN: Excuse me, Dr. Quebedeaux. Let me continue for just a moment. Let me explain this situation. I should have said this. The public presentations here -- and we will let you talk later -- as far as I can see are closed. This in effect is an Executive Session. May I announce to all the people that we could have left the room and gone into another room. But we are doing this in public, and I think until we can finish we would like to imagine a glass wall between us. You can see and you can hear. But I think we have listened to the people extensively for the past 6 days, and I think this period should be reserved for the conferees to work this out with each other. I am afraid I am not going to be able to recognize anyone until we conclude.

DR. QUEBEDEAUX: Well, Mr. Chairman, Harris County is a part of the conferees whether I am sitting at that table or not (indicating) under the Court's decision, and I would like to speak to your suggestion just a moment. That is all.

CHAIRMAN STEIN: Sir, let me indicate this: Under the Federal law -- and I announced this at the beginning of the conference -- the Texas Water Quality Board and EPA are the conferees. That is it. No one else is a conferee.

I would suggest that we will have to abide by the statute under which I operate. I have no jurisdiction to go beyond that.

MR. YANTIS: Let me make my statement then, and perhaps there will be no problem.

CHAIRMAN STEIN: Yes.

MR. YANTIS: Because regardless of whether we can make a decision today -- and I think that we cannot in the larger sense -- there are things that we have learned and decisions which I have made.

I have learned, first of all, that I think the accomplishments of the Texas Water Quality Board, aided by other levels of government and by private people, are far greater than are generally known.

I have also learned that they are far less than many people wish them to be.

I have learned that there is not a great deal of difference of opinion upon what our ultimate objectives are. There are differences of opinion. There are differences of opinion as to how soon they should be reached, and how they should be reached.

Most of all, though, we have learned that there has not been sufficient open communication not only with the public but with local government and with Federal Government.

It has been said over and over again that the problem is large enough for all of us, and that given cooperation we can agree upon a solution if no one party, be it Federal, State or local, seeks to dominate the others.

So I think that during the period when the report is being recast, we can reestablish that which we should never have lost but apparently did -- effective communication -- so there will be a place during this recasting of the report for county government, in any way that county government wishes, to participate.

We cannot agree in advance that we would agree with all that the county might say, nor that we would agree with all that the Federal Government might say, nor they with us. But I think one point that I would like to make, whether the Chairman of the conference concurs or not, it has been, in any view, clearly and factually and legally established: that the shellfish -- whether we mean mollusks and bivalves only, or whether we include shrimp and crab -- those sold presently from the Galveston Bay area from those legal open areas are certified by the FDA and State Health Department as quite satisfactory for distribution and for eating, and the public should have no fear.

I also agree that on the long-term basis, as with all food products, research should continue.

But I think that we should dispel the immediate fear of unacceptable food products from that area. I do not believe they are, and legally they are not.

I think that we will discuss further, after the report is recast, the nature of the Texas program; the effectiveness of it; the whole matter of our permit system and its relation to the 1899 Refuse Act.

I don't think we can speak to those things today. But they have not been spoken to adequately.

I am proud of the Texas program, but I am not so proud as to say we don't need help and can't use help.

But within this framework of comments, most of all I am saying that we need public trust. But we need to deserve it. Within that framework, I think that we should go into a period to restudy the report and then restudy what action we should take from there.

CHAIRMAN STEIN: Mr. Vanderhoof, do you have anything you might want to add to that?

MR. VANDERHOOF: I have a statement, Mr. Chairman, that I would like to put in the record.

CHAIRMAN STEIN: All right.

MR. VANDERHOOF: In the closing of this session of the conference, I would like to review with you my immediate observations and impressions of the testimony presented since this conference convened.

The people of the State of Texas have been most courteous and their hospitality typically Texan.

It has not been our purpose to engender an atmosphere of adverse relationships. It has to be expected in this situation where Federal intervention occurs or appears, such action might be viewed by the State with reservation and some degree of resistance.

Our efforts have been aimed at effectively addressing ourselves to the problems as they currently appear to us. It is not, nor has it ever been, our intent to criticize or cast any doubt on the efforts, integrity, or ability of the public officials in the State of Texas. We have no wish to displace or supplant the authority of the State of Texas over the subject matters discussed during this conference. We wish to help. Our primary purpose is to conform and to comply with the laws of the United States as they relate to the Environmental Protection Agency. You may realize implications and inferences could be drawn from our attendance at the much publicized free fish fry of 2 evenings ago. We chose to demonstrate good faith in an honest attempt to cooperate and work creatively with the State of Texas, in order to attain our common goals. I concur communications have been a barrier. I hope we can overcome this.

Now if I may, I would like to address a few remarks to the representatives of industry who have so freely given of their time, in order to help us become better informed as to their activities, attitudes, and accomplishments in the field of water pollution control.

Again, it was not our intent in calling this conference to cast any doubt upon the honesty and integrity of the companies discharging in the Galveston Bay area. We clearly and most emphatically recognize the important social and economic role that industry plays in our society. We realize industry's willingness to comply and conform with the law of the land. We also recognize the Governments obligation to industry to avoid a capricious and arbitrary action which could cause a major problem in the conduct of their business.

I would like to relate to the program of the income tax philosophy for pollution control. It would appear that each one of us who pays income tax pays every penny we owe, but not a penny more. The same with industry; it will do what it is told and no more.

As to the industries we have heard from, I feel they recognize and realize the ability to hire or employ people does not carry with it the right to pollute. Industry also must realize its best planning efforts for development and investment cannot, in all cases, be cast in concrete and not be subject to changes or revisions due to conditions other than economics.

In the area of environmental matters reliance on unchanging conditions or requirements for extended periods of time are luxuries that are not and will not be available.

A permit issued by any authority would be a marvelous thing indeed if a company could rely upon its validity and consistency for a long period of time. The rapid deterioration of our environment precludes this.

As our knowledge grows with regard to the effect of pollutants on our environment, so too must the restraints upon pollution emissions be capable of change in response to such knowledge.

Until quite recently, this Agency's direct contact with industry has been quite limited.

Under the present law, and interpretations given that law, our relations will become increasingly closer and more direct.

I say this not in the vein of creating a concern or distress on the part of industry, but as a basis for a better understanding by all parties concerning the existing problems, limitations and expectancies.

When I refer to "direct contact," I do not mean in lieu of or instead of State agencies charged with protecting the environment but rather in close cooperation and partnership with them.

I would sincerely hope that the State, every state, would view the EPA with the same respect and cooperation as the law enforcement agencies of the State and counties and the cities view the FBI.

Now to the private citizens and citizen groups who have so patiently stayed during the course of this conference, I express my gratitude and admiration for standing by your convictions and expressing them. I assure you that we recognize your concern over the existing conditions of the Galveston

Bay area.

It is not the intent of this Agency to base this action upon criticism of what has or has not been done by the concerned parties, but rather to recognize the magnitude of the problem and exert our efforts toward its solution.

However, you must realize we are obligated to act in conformity with the law and with the resources made available to us. The conditions that exist in this area are the results of years of gradual but steady degradation of the environment, and an immediate reversal of this condition is neither practical nor possible. It requires the efforts of all persons -- public and private -- to reverse the trend.

The State of Texas has stemmed the rate of degradation, but more is needed to reverse this trend.

Mr. Ruckelshaus, in calling this conference, has invoked Federal jurisdiction in order to add manpower and resources to those who have already taken up the fight.

It is our intent that many full and

constructive recommendations shall be forthcoming from this conference, which will serve as the foundation for a cooperative program and protect the public interest in the waters of the Galveston Bay area.

I have observed that the innocent parties -- the seafood industry -- have been indirectly hurt by the actions of this conference, and I regret it. Never again should such a thing happen and we hope our recommendations will offset this.

I have about 3 or 4 pages of notes on the various recommendations that I propose to discuss with my staff. I don't suppose it would be appropriate at this time to go into them in any detail. But they concern degrees of treatment; they concern the shellfish industry; they concern the power company; they concern heavy metals; they concern oyster dredging; and pesticides.

You people who have presented information have been a great source of help, and many of the things that you are concerned about, we too are concerned about, and we will do our best.

CHAIRMAN STEIN: Thank you, Mr. Vanderhoof.

This would be my statement. I would like to state, in view of the work that has been cut out for us, that I would suggest we have several people assigned. Of course, the head of Federal Enforcement here in Texas is Mr. Harrison. Tom, are you here? Mr. Harrison is the Enforcement representative of the Region and will be in touch with you people.

Of course, Mr. Kallus is in residence here, and I guess Mr. Gallagher has prepared the report and should be working very closely with you people on this matter. I understand in the Region there is a technical staff, a Mr. Duty.

These are the people working on this problem. I recognize they all have other duties. Therefore, I think in view of the magnitude of the problem we face in getting these data into shape, I will allow up to -- and I say "up to" at the present -- 10 people to be at the call of Mr. Kallus to come down here to assist in gathering this data. I don't think there is anything that has a higher priority than getting this into shape.

We will also place our machinery for

computing data or making tests, if you need them, available in Cincinnati, in Athens, and in other laboratories of the country so that this can be done.

This limitation we give you does not include the people who you may want to get, if you do, on thermal pollution, from the Narragansett laboratory, and Dr. Tarzwell.

Now I ask you to regard this as just a call and money in the bank, to be divested later — because we have a lot of pollution problems throughout the country.

It is going to take resources and manpower to get us ready to get all these facts available. I want to make them available here. If necessary, you can make these guys practically temporary residents of Houston if that is going to help you out. But we are going to do it.

DR. QUEBEDEAUX: Let me correct the record, rather than leave it in the form that it is. And I have that duty.

Harris County is perfectly willing to accept Mr. Yantis' statement, as long as we have a place where we can come within your definition of one of the 2 conferees and put our input in -- whether it is with 2 of them together or just Mr. Yantis.

CHAIRMAN STEIN: Sir, I would hope -- and I extend the time to say this -- I have worked throughout the States for many years. I will state again: Our law provides that the primary rights and responsibilities for pollution control rest with the State. But I hope that if we are going to get the data that is going to be acceptable, that not only will the State participate in it but, going through the State agencies and working with them as we always have, the appropriate cities and counties and industries and anyone else who has pertinent information will be brought into this process. Otherwise, we are going to have a very difficult time settling it.

The point is that this is hard enough. I don't think our objective is to getting something that just the State of Texas and the Federal Government agree on.

If the people in this area -- and that includes counties, municipalities, industries, conservation groups, citizen groups -- don't agree with what we are saying, the program isn't going to get off the ground just because you have the State and Federal agencies in agreement.

You know, as we say sometimes in law "sine qua non" of the program -- without which we can't move. You must come along and be in agreement. Otherwise, we are all going to have a very difficult time.

DR. QUEBEDEAUX: I think we are in agreement, Mr. Chairman.

CHAIRMAN STEIN: Thank you.

MR. YANTIS: Murray, I do think I need to make one clarifying comment.

CHAIRMAN STEIN: Yes.

MR. YANTIS: I think we definitely should end the conference on a friendly note for better future cooperation. I would remind you that the State set out certain attitudes as the conference opened -- we said them sincerely and in the belief that they were correct. I think we have shown that in our mind that had we had the correct report, which we are now talking about, there would not have been a conference called.

I don't believe the conference technique is the right way to resolve the problem. You do need conferences from time to time. But I did point out that we have conferences in Texas. We have public hearings in Texas.

I think that what we need to review, as much as anything, is the way that we make our decisions and the part that the Federal Government will play in those decisions. But I do not see that a reconstituted report, with new data, is simply going to be a reconvening of this conference so that it would become a place where the Federal Government gives us new instructions.

Now I think that I detected a little bit of that in your comments and Mr. Vanderhoof's, and I hope that I am wrong. But I think that we have certain programs in Texas which should continue. We have some studies which should continue. We have a way of doing business which should continue. It should also be improved. It will be improved as we get our new appropriation.

But this is not merely a resting spell for a new attack. It is on the same basis that we opened the conference in the first place.

CHAIRMAN STEIN: Thank you, Hugh.

In the interest of ending this on a cordial note, I won't respond in detail. I will say the Federal Government is not prepared to give Texas instructions; we are prepared to insure that we have a clean environment where our statute places the responsibility on us, and we hope to achieve this with the cooperation of the great State of Texas.

But achieve it, we will.

MR. YANTIS: Mr. Stein, as I look at you through the windows of the Alamo, I see a dear friend, and I would enjoy working with you in the future.

CHAIRMAN STEIN: Right. Thank you.

By the way, I think we have compiled a marvelous record. I want to thank all of you for participating, particularly those who have stayed with us through thick and thin these 6 days.

And, with that, we stand adjourned.

(Whereupon, the conference adjourned.)

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